

Service Manual

ORDER NO.
CRT3502

DVD MULTIMEDIA AV NAVIGATION SERVER

AVIC-N2_{/XU/UC1}



 is a trademark of DVD Format/Logo Licensing Corporation.

This service manual should be used together with the following manual(s) listed below.
For the parts numbers, adjustments, etc. which are not shown in this manual,
refer to the following manual(s).

Model No.	Order No.	Mech. Module	Remarks
AVIC-N2/XU/UC	CRT3423		
CX-3016	CRT3056	MS3	DVD Mech. Module : Circuit Description, Mech. Description, Disassembly

This product has the unit part number as below.

Unit Part No.	Description
CPN2107	Navigation Unit
CPN2106	Hideaway Unit

*) The unit part numbers listed above are not for the service components.

SAFETY INFORMATION

WARNING

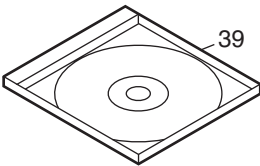
This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

This product contains mercury. Disposal of this material may be regulated due to environmental considerations.
For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance: www.eiae.org.

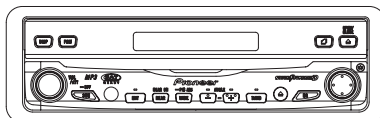
EXPLODED VIEWS AND PARTS LIST
PACKING(Page 12)

● PACKING SECTION PARTS LIST

Mark	No.	Description	AVIC-N2/XU/UC	AVIC-N2/XU/UC1
	3	Carton	CHG5463	CHG5652
	4	Contain Box	CHL5463	CHL5652
	39	DVD-ROM	Not used	CZP3025



Service Manual



AVIC-N2/XU/UC

ORDER NO.
CRT3423

DVD MULTIMEDIA AV NAVIGATION SERVER

AVIC-N2_{/XU/UC}

DVD AV NAVIGATION HEAD-UNIT

AVIC-X1R_{/XU/EW}

This service manual should be used together with the following manual(s):

Model No.	Order No.	Mech.Module	Remarks
CX-3016	CRT3056	MS3	DVD Mech. Module:Circuit Description, Mech. Description, Disassembly

NOTE:

Manufactured under license from Dolby Laboratories. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

This product has the unit part number as below.

Unit Part No.	Description
CPN1955	Navigation Unit(AVIC-N2/XU/UC)
CPN1953	Hideaway Unit(AVIC-N2/XU/UC)
CPN1954	Navigation Unit(AVIC-X1R/XU/EW)
CPN1952	Hideaway Unit(AVIC-X1R/XU/EW)

*) The unit part numbers listed above are not for the service components.



For details, refer to "Important Check Points for Good Servicing".

SAFETY INFORMATION

UC

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

This product contains mercury. Disposal of this material may be regulated due to environmental considerations. For disposal or recycling information, please contact your local authorities or the Electronics Industries Alliance: www.eiae.org.

EW

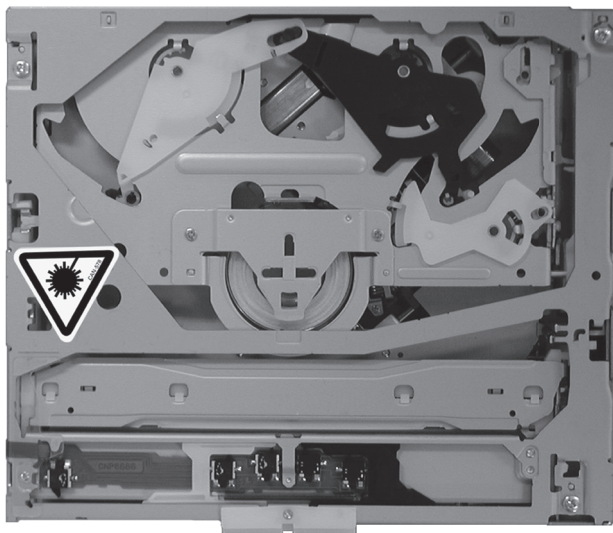
1. Safety Precautions for those who Service this Unit.

- Follow the adjustment steps in the service manual when servicing this unit. When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.

Caution:

1. During repair or tests, minimum distance of 13cm from the focus lens must be kept.
2. During repair or tests, do not view laser beam for 10 seconds or longer.

2. The triangular label is attached to the mechanism unit frame.



CAUTION

This product contains a laser diode of higher class than 1. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product.

Refer all servicing to qualified personnel.

The following caution label appears on your unit.

Location: on the bottom of the unit



En

On the top of the player.

CAUTION	· VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. · AVOID EXPOSURE TO BEAM.
VORSICHT	· SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETZEN!
ADVARSEL	· SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING · UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARNING	· SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA · DEL ÄR ÖPPNAD BETRÄKTA EJ STRÅLEN.
VARO!	· AVATTAESSA ALTISTUT NÄKYVÄ JA NÄKYMÄTTÖMÄLLE · LASERSATEIL YLLÄ. ÄLÄ KATSO SÄTEESÄN.

VRV1860

WARNING!

The AEL (accessible emission level) of the laser power output is less than CLASS 1 but the laser component is capable of emitting radiation exceeding the limit for CLASS 1.

A specially instructed person should do servicing operation of the apparatus.

Laser diode characteristics

Wave length:

DVD:640~660nm

CD:770~810nm

Maximum output:2.48mw(Emitting period :9sec.)

DVD:705μw(Emitting period : unlimited)

Additionla Laser Caution

Transistors Q1101 and Q1102 in PCB drive the laser diodes for DVD and CD respectively. When Q1101 or Q1102 is shorted between their terminals, the laser diodes for DVD or CD will radiate beam. If the top cover is removed with no disc loaded while such short-circuit is continued, the naked eyes may be exposed to the laser beam.

● Service Precautions

1. You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

DVD MECHANISM MODULE section precaution

1. Before disassembling the unit, be sure to turn off the power. Unplugging and plugging the connectors during power-on mode may damage the ICs inside the unit.
2. To protect the pickup unit from electrostatic discharge during servicing, take an appropriate treatment (shorting-solder) by referring to "the DISASSEMBLY".
3. After replacing the pickup unit, be sure to check the grating.
4. During disassembly, be sure to turn the power off since an internal IC might be destroyed when a connector is plugged or unplugged.

NAVIGATION UNIT section precaution

1. Inverter for LCD back light becomes a high voltage.
2. When inspecting the touch panel, use something thin with a round tip such as the touch pen. Furthermore, do not apply excessive force to the touch panel.
3. Since this product does not have OSD IC, OSD for adjustment is displayed by using GGF1416 and GGF1463 at the time of monitor adjustment. As you will find lands for 14 pins with 0.8mm pitch at the left top part of the monitor board, directly solder a flexible PCB of GGD1323 for adjustment. As GGD1322 is not used, be careful not to short the terminal.
4. The region code determination at the time of DVD hardware change is made by the destination (UC: Region 1, EW: Region 2) of the car control unit.
5. If you reconnected the Hide-away unit, press the RESET button.



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[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol.
Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

- ① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

- ② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification (addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

- ③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris.
Soldering should be finished with the proper quantity. (Refer to the example)

- ④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

- ⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

- ⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs.
In addition, be sure that there are no pinched wires, etc.

- ⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

- ⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages.
If you find a damaged power cord, please exchange it with a suitable one.

- ⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

- ⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries.
Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification.
Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance.
Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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1. SPECIFICATIONS

● AVIC-N2/XU/UC

General

Rated power source 14.4 V DC
(10.8 - 15.1 V allowable)

Grounding system Negative type

Max. current consumption

..... 10.0 A

Backup current 6.5 mA or less

Display unit:

Dimensions (W x H x D):

DIN

Chassis 178 x 50 x 160 mm

(7 x 2 x 6-1/4 in.)

Nose 188 x 58 x 34 mm

(7-3/8 x 2-1/4 x 1-3/8 in.)

D

Chassis 178 x 50 x 165 mm

(7 x 2 x 6-1/2 in.)

Nose 170 x 46 x 29 mm

(6-3/4 x 1-3/4 x 1-1/4 in.)

Weight 2.5 kg(5.5 lbs)

Hideaway unit:

Dimensions (W x H x D)

..... 180 x 30 x 140 mm

(5-7/8 x 1-1/8 x 3-7/8 in.)

Weight 0.7 kg(1.5 lbs)

Navigation

GPS Receiver:

System L1, C/Acode GPS

SPS (Standard Positioning Service)

Reception system 8-channel multi-channel
reception system

Reception frequency ... 1,575.42 MHz

Sensitivity -130 dbm

Position update frequency

..... Approx. once per second

GPS antenna:

Antenna Micro strip flat antenna/
right-handed helical polarization

Antenna cable 5.0 m(16 ft. 5 in.)

Dimensions (W x H x D)

..... 33 x 13 x 36 mm

(1-1/4 x 1/2 x 1-3/8 in.)

Weight 105 g(0.23 lbs)

Display

Screen size/aspect ratio 6.5 inch wide/16:9
(effective display area: 144 x
76 mm)

Pixels 336,960 (1,440 x 234)

Type TFT active matrix,
transmissive type

Color system NTSC

Operating temperature range

..... -14 - +122 °F

Storage temperature range

..... -4 - +176 °F

Angle adjustment 50 - 110°

(initial settings: 110°)

Audio

Continuous power output is 22 W per channel minimum
into 4 ohms, both channels driven 50 to 15,000 Hz with
no more than 5% THD.

Maximum power output 50 W x 4

50 W x 2 ch/4 Ω + 70 W x 1

ch/2 Ω (for subwoofer)

Load impedance 4 Ω (4 - 8 Ω [2 Ω for 1 ch]
allowable)

Preout max output level/output impedance

..... 2.0 V/100 ohm

Equalizer (3-Band Parametric Equalizer):

Low

Frequency 40/80/100/160 Hz

Q Factor 0.35/0.59/0.95/1.15 (+6 dB
when boosted)

Gain ±12dB

Mid

Frequency 200/500/1k/2k Hz

Q Factor 0.35/0.59/0.95/1.15 (+6 dB
when boosted)

Gain ±12dB

High

Frequency 3.15k/8k/10k/12.5k Hz

Q Factor 0.35/0.59/0.95/1.15 (+6 dB
when boosted)

Gain ±12dB

Loudness contour

Low +3.5 dB (100 Hz), +3 dB (10
kHz)

Mid +10 dB (100 Hz), +6.5 dB
(10 kHz)

High +11 dB (100 Hz), +11 dB
(10 kHz)

(volume: -30 dB)

Tone controls:

Bass

Frequency 40/63/100/160 Hz

Gain ±12dB

Treble

Frequency 2.5k/4k/6.3k/10k Hz

Gain ±12dB

HPF:

Frequency 0/80/125 Hz

Slope -12 dB/oct

Subwoofer:

Frequency 50/80/125 Hz

Slope -18 dB/oct

Gain ±12dB

Phase Normal/Reverse

DVD Drive

System.....	DVD-Video, Compact disc audio, MP3 system
Usable discs	DVD-Video, Compact disc, MP3
Region number.....	1
Signal format:	
Sampling frequency....	44.1/48/96 kHz
Number of quantization bits	16/20/24; linear
Frequency response	5 – 44,000 Hz (with DVD, at sampling frequency 96 kHz)
Signal-to-noise ratio	97 dB (1 kHz) (IHF-A network) (CD: 96 dB (1 kHz) (IHF-A network))
Dynamic range	95 dB (1 kHz) (CD: 94 dB (1 kHz))
Distortion.....	0.008 % (1 kHz)
Output level:	
Video	1.0 Vp-p/75 Ω (± 0.2 V)
Audio	1.0 V (1 kHz, 0 dB)
Number of channels.....	2 (stereo)
MP3 decoding format	MPEG-1 & 2 Audio Layer 3

FM tuner

Frequency range.....	87.9 – 107.9 MHz
Usable sensitivity.....	8 dBf (0.7 μ V/75 Ω , mono, S/N: 30 dB)
50 dB quieting sensitivity.....	10 dBf (0.9 μ V/75 Ω , mono)
Signal-to-noise ratio	75 dB (IHF-A network)
Distortion.....	0.3 % (at 65 dBf, 1 kHz, stereo) 0.1 % (at 65 dBf, 1 kHz, mono)
Frequency response	30 – 15,000 Hz (± 3 dB)
Stereo separation	45 dB (at 65 dBf, 1 kHz)
Selectivity	80 dB (± 200 kHz)
Three-signal intermodulation (desired signal level)	30 dBf (two undesired signal level: 100 dBf)

AM tuner

Frequency range.....	530 – 1,710 kHz (10 kHz)
Usable sensitivity.....	18 μ V (S/N: 20 dB)
Signal-to-noise ratio	65 dB (IHF-A network)

Note:

- Specifications and the design are subject to possible modifications without notice due to improvements.

● AVIC-X1R/XU/EW

General

Rated power source 14.4 V DC
(allowable voltage range:
12.0 – 14.4 V DC)

Earthing system..... Negative type
Max. current consumption
..... 10.0 A

Backup current 6.5 mA or less

Display unit:

Dimensions (W x H x D):

DIN

Chassis 178 x 50 x 160 mm

Nose..... 188 x 58 x 34 mm

D

Chassis 178 x 50 x 165 mm

Nose..... 170 x 46 x 29 mm

Weight 2.5 kg

Hideaway unit:

Dimensions (W x H x D)

..... 180 x 30 x 140 mm

Weight 0.7 kg

Navigation

GPS Receiver:

System..... L1, C/Acode GPS

SPS (Standard Positioning Service)

Reception system 8-channel multi-channel
reception system

Reception frequency 1,575.42 MHz

Sensitivity –130 dbm

Position update frequency

..... Approx. once per second

GPS aerial:

Aerial Micro strip flat aerial/righthanded
helical polarization

Aerial cable 5.0 m

Dimensions (W x H x D)

..... 33 x 13 x 36 mm

Weight 105 g

Display

Screen size/aspect ratio 6.5 inch wide/16:9
(effective display area: 144 x
76 mm)

Pixels 336,960 (1,440 x 234)

Type..... TFT active matrix, transmissive
type

Colour system..... NTSC/PAL compatible

Operating temperature range

..... –10 – +50 °C

Storage temperature range

..... –20 – +80 °C

Angle adjustment..... 50 – 110°
(initial settings: 110°)

Audio

Maximum power output 50 W x 4
50 W x 2 ch/4 Ω + 70 W x 1
ch/2 Ω (for subwoofer)

Continuous power output.... 27 W x 4 (DIN 45324,
+B=14.4 V)

Load impedance..... 4 Ω (4 – 8 Ω [2 Ω for 1 ch]
allowable)

Preout max output level/output impedance

..... 2.0 V/100 ohm

Equalizer (3-Band Parametric Equalizer):

Low

Frequency 40/80/100/160 Hz

Q Factor..... 0.35/0.59/0.95/1.15 (+6 dB
when boosted)

Gain ±12dB

Mid

Frequency 200/500/1k/2k Hz

Q Factor..... 0.35/0.59/0.95/1.15 (+6 dB
when boosted)

Gain ±12dB

High

Frequency 3.15k/8k/10k/12.5k Hz

Q Factor..... 0.35/0.59/0.95/1.15 (+6 dB
when boosted)

Gain ±12dB

Loudness contour

Low +3.5 dB (100 Hz), +3 dB (10
kHz)

Mid..... +10 dB (100 Hz), +6.5 dB
(10 kHz)

High..... +11 dB (100 Hz), +11 dB
(10 kHz)
(volume: –30 dB)

Tone controls:

Bass

Frequency 40/63/100/160 Hz

Gain ±12dB

Treble

Frequency 2.5k/4k/6.3k/10k Hz

Gain ±12dB

HPF:

Frequency 50/80/125 Hz

Slope..... –12 dB/oct

Subwoofer:

Frequency 50/80/125 Hz

Slope..... –18 dB/oct

Gain ±12dB

Phase Normal/Reverse

DVD Drive

System..... DVD-Video, Compact disc
audio, MP3 system

Usable discs DVD-Video, Compact disc,
MP3

Region number..... 2

Signal format:

Sampling frequency..... 44.1/48/96 kHz

Number of quantization bits

..... 16/20/24; linear

Frequency response..... 5 – 44,000 Hz (with DVD, at
sampling frequency 96 kHz)

Signal-to-noise ratio 97 dB (1 kHz) (IEC-A network)

	(CD: 96 dB (1 kHz) (IEC-A network))
Dynamic range	95 dB (1 kHz)
	(CD: 94 dB (1 kHz))
Distortion.....	0.008 % (1 kHz)
Output level:	
Video	1.0 Vp-p/75 Ω (± 0.2 V)
Audio.....	1.0 V (1 kHz, 0 dB)
Number of channels.....	2 (stereo)
MP3 decoding format	MPEG-1 & 2 Audio Layer 3

FM tuner

Frequency range.....	87.5 – 108.0 MHz
Usable sensitivity.....	8 dBf (0.7 μ V/75 Ω , mono, S/N: 30 dB)
50 dB quieting sensitivity.....	10 dBf (0.9 μ V/75 Ω , mono)
Signal-to-noise ratio	75 dB (IEC-A network)
Distortion.....	0.3 % (at 65 dBf, 1 kHz, stereo)
	0.1 % (at 65 dBf, 1 kHz, mono)
Frequency response	30 – 15,000 Hz (± 3 dB)
Stereo separation	45 dB (at 65 dBf, 1 kHz)
Selectivity	80 dB (± 200 kHz)

MW tuner

Frequency range.....	531 – 1,602 kHz (9 kHz)
Usable sensitivity.....	18 μ V (S/N: 20 dB)
Signal-to-noise ratio	65 dB (IEC-A network)

LW tuner



Frequency range.....	153 – 281 kHz (9 kHz)
Usable sensitivity.....	30 μ V (S/N: 20 dB)
Signal-to-noise ratio	65 dB (IEC-A network)

Note:

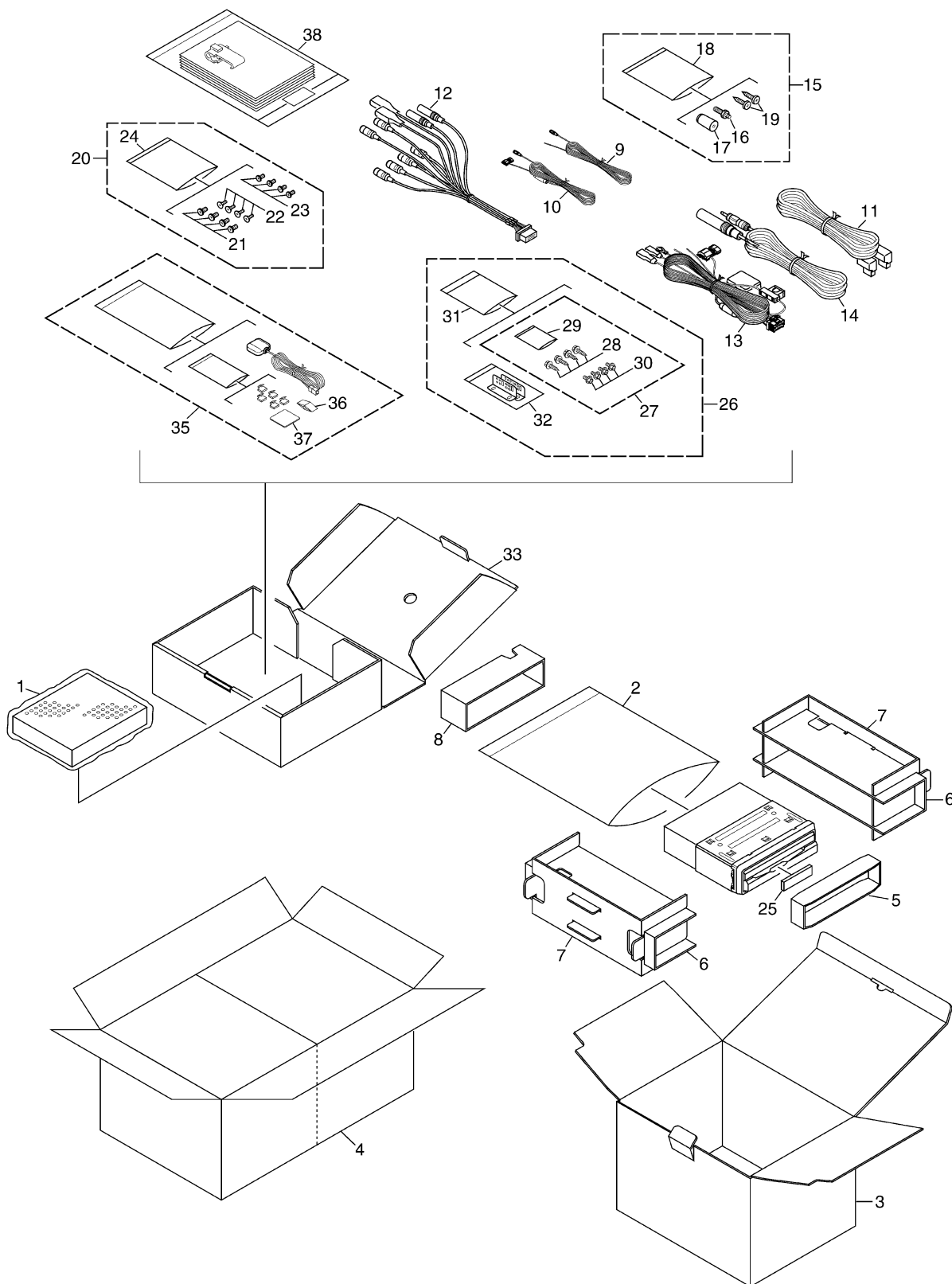
- Specifications and the design are subject to possible modifications without notice due to improvements.

2. EXPLODED VIEWS AND PARTS LIST

NOTES : • Parts marked by " * " are generally unavailable because they are not in our Master Spare Parts List.

- The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Screw adjacent to  mark on the product are used for disassembly.
- For the applying amount of lubricants or glue, follow the instructions in this manual.
(In the case of no amount instructions, apply as you think it appropriate.)

2.1 PACKING (AVIC-N2/XU/UC)



PACKING (AVIC-N2/XU/UC) SECTION PARTS LIST

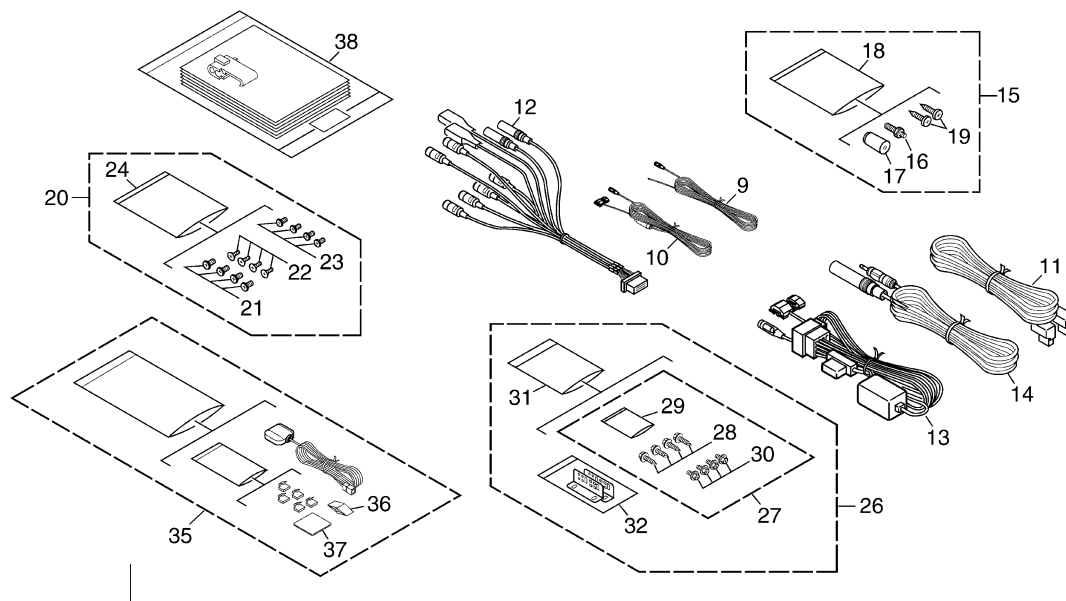
Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Air Cushioned Bag	CEG1007	* 31	Polyethylene Bag	CEG1163
2	Polyethylene Bag	CEG1173	32	Angle Assy	CXC1079
3	Carton	CHG5463	33	Sub Carton	CHG5440
4	Contain Box	CHL5463	34	.....
5	Protector	CHP2879	35	GPS Antenna Assy	CXC4864
6	Protector	CHP2877	36	Water Proof Pad	CZN5442
7	Protector	CHP2876	37	Sheet	CZN7008
8	Protector	CHP2945	38-1	Polyethylene Bag	CEG1116
9	Cord	CDE5044	38-2	Owner's Manual	CRB2025
10	Cord	CDE6825	38-3	Owner's Manual	CRB2026
11	Cord Assy	CDE7398	38-4	Owner's Manual/POC/FRE	CRB2027
12	Cord Assy	CDE7399	38-5	Owner's Manual/POC/FRE	CRB2028
13	Cord Assy	CDE7487	38-6	Installation Manual	CRD3957
14	Antenna Cable	CDH1325	38-7	Caution Card	CRP1310
15	Accessory Assy	CEA3685	* 38-8	Card	ARY1048
16	Screw	CBA1650	38-9	Cleaning Cloth Assy	CEA3952
17	Bush	CNV1917	* 38-10	Registration Card	CRY1238
* 18	Polyethylene Bag	E36-615	* 38-11	Caution Card	CRP1321
19	Screw	JGZ20P070FTC	38-12	Connector	CKX1049
20	Screw Assy	CEA3686			
21	Screw	BMZ50P060FTC			
22	Screw(M4x6)	CBA1468			
23	Screw	CMZ50P060FTC			
* 24	Polyethylene Sheet	CNM4338			
25	Spacer	CNM9149			
26	Accessory Assy	CEA3996			
27	Screw Assy	CEA4396			
28	Screw	CBA1795			
* 29	Polyethylene Sheet	CNM4338			
30	Screw	HMF40P080FTC			

● Owner's Manual, Installation Manual

Part No.	Language
CRB2025, CRB2026	English
CRB2027, CRB2028	French
CRD3957	English, French

2.2 PACKING (AVIC-X1R/XU/EW)

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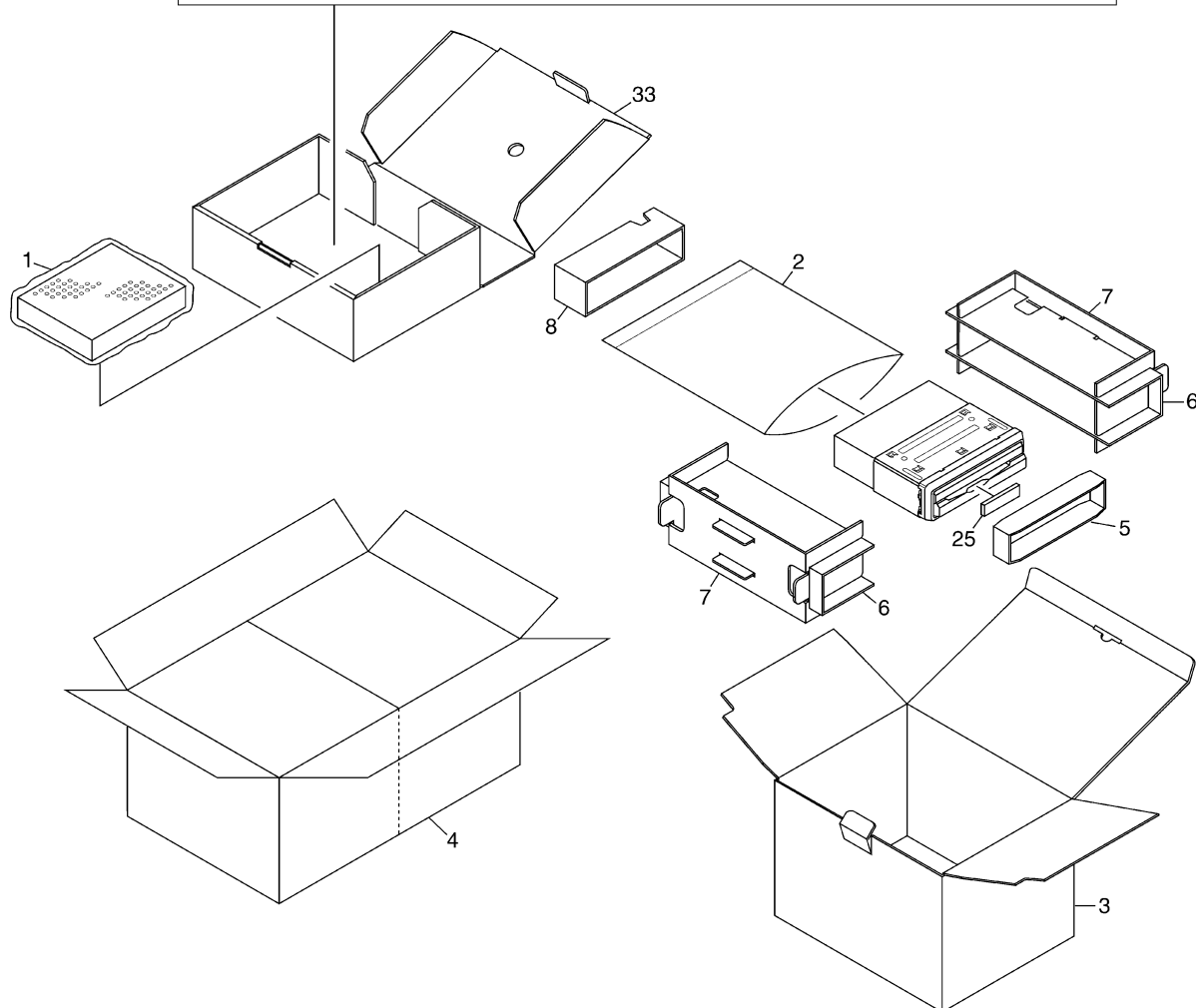
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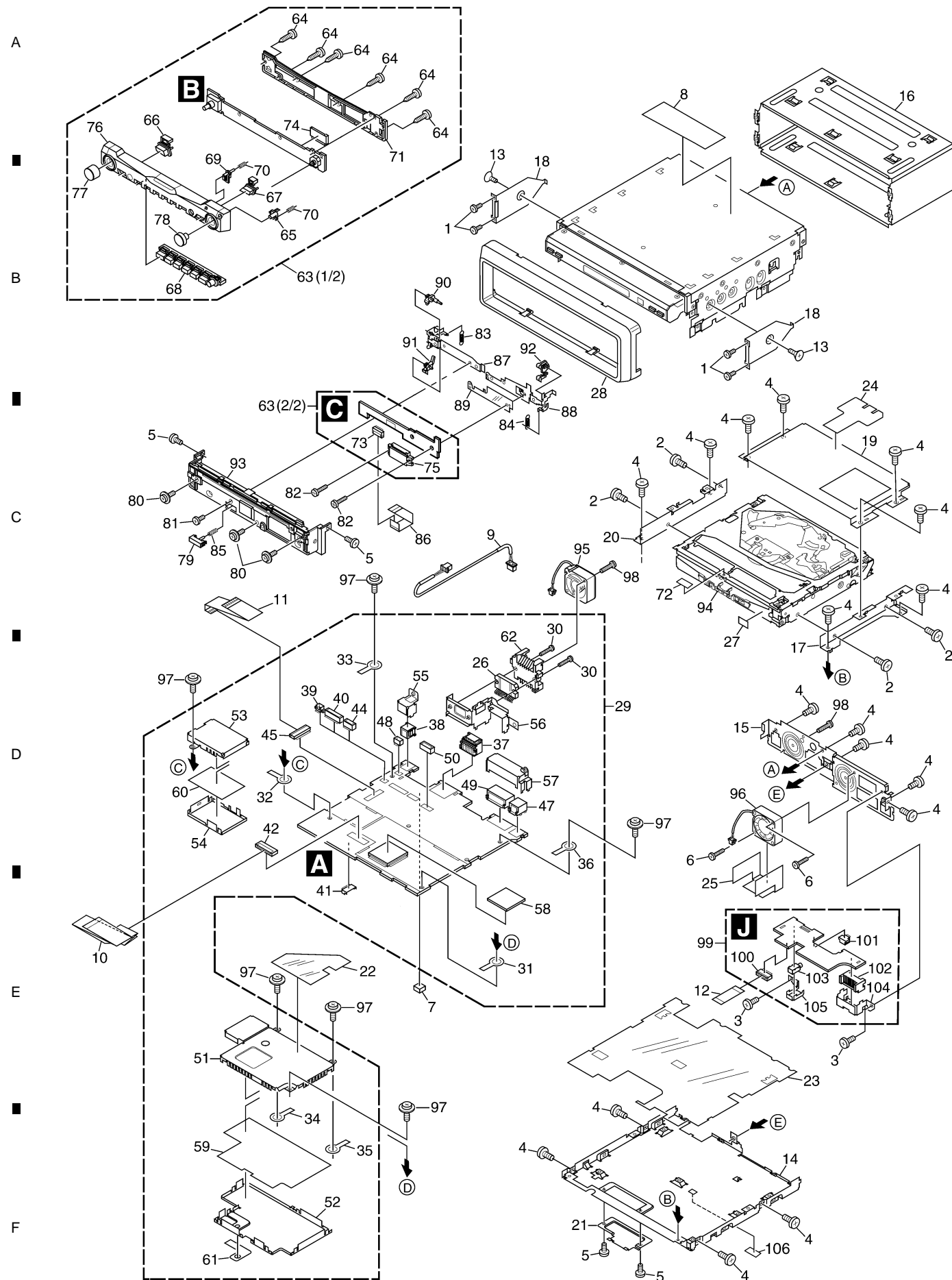
PACKING (AVIC-X1R/XU/EW) SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Air Cushioned Bag	CEG1007	* 31	Polyethylene Bag	CEG1163
2	Polyethylene Bag	CEG-162	32	Angle Assy	CXC1079
3	Carton	CHG5462	33	Sub Carton	CHG5440
4	Contain Box	CHL5462	34	•••••	
5	Protector	CHP2879	35	GPS Antenna Assy	CXC4864
6	Protector	CHP2877	36	Water Proof Pad	CZN5442
7	Protector	CHP2876	37	Sheet	CZN7008
8	Protector	CHP2945	38-1	Polyethylene Bag	CEG1116
9	Cord	CDE5044	38-2	Owner's Manual/PEE/ENG	CRB2029
10	Cord	CDE6825	38-3	Owner's Manual/PEE/ENG	CRB2030
11	Cord Assy	CDE7398	38-4	Owner's Manual/PEE/SPA	CRB2031
12	Cord Assy	CDE7399	38-5	Owner's Manual/PEE/SPA	CRB2032
13	Cord Assy	CDE7486	38-6	Owner's Manual/PEE/GER	CRB2033
14	Antenna Cable	CDH1325	38-7	Owner's Manual/PEE/GER	CRB2034
15	Accessory Assy	CEA3685	38-8	Owner's Manual/PEE/FRE	CRB2035
16	Screw	CBA1650	38-9	Owner's Manual/PEE/FRE	CRB2036
17	Bush	CNV1917	38-10	Owner's Manual/PEE/ITA	CRB2037
* 18	Polyethylene Bag	E36-615	38-11	Owner's Manual/PEE/ITA	CRB2038
19	Screw	JGZ20P070FTC	38-12	Owner's Manual/PEE/DUT	CRB2039
20	Screw Assy	CEA3686	38-13	Owner's Manual/PEE/DUT	CRB2040
21	Screw	BMZ50P060FTC	38-14	Installation Manual	CRD3958
22	Screw(M4x6)	CBA1468	* 38-15	Passport	CRY1013
23	Screw	CMZ50P060FTC	* 38-16	Warranty Card	CRY1157
* 24	Polyethylene Sheet	CNM4338	38-17	Cleaning Cloth Assy	CEA3952
25	Spacer	CNM9149	38-18	Sheet	CNM8603
26	Accessory Assy	CEA3996	* 38-19	Lock Tie	CNV-754
27	Screw Assy	CEA4396	* 38-20	Caution Card	CRP1322
28	Screw	CBA1795	38-21	Connector	CKX1049
* 29	Polyethylene Sheet	CNM4338			
30	Screw	HMF40P080FTC			

● Owner's Manual, Installation Manual

Part No.	Language
CRB2029, CRB2030	English
CRB2031, CRB2032	Spanish
CRB2033, CRB2034	German
CRB2035, CRB2036	French
CRB2037, CRB2038	Italian
CRB2039, CRB2040	Dutch
CRD3958	English, Spanish, German, French, Italian, Dutch

2.3 NAVIGATION UNIT (1)



NAVIGATION UNIT (1) SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	Screw	BMZ20P030FZK	57	Holder	CND1955	
2	Screw(M2x3)	CBA1527	58	Sheet	CNM7902	A
3	Screw	BMZ26P025FTC	59	Insulator	CNM8572	
4	Screw	BMZ26P040FTC				
5	Screw(M2x2.5)	CBA1615	60	Insulator	CNM8573	
			61	Insulator	CNM8856	
6	Screw(M2.6x12)	CBA1620	62	Heat Sink	CNR1739	
7	Spacer	CNM9200	63	Detach Grille Assy(UC model)	CXC4305	
8	Label(EW model)	VRW1860		Detach Grille Assy(EW model)	CXC4304	
9	Cord Assy	CDE7401				
10	FFC	CDE7740	64	Screw	BPZ20P080FZK	
			65	Button(DETACH)	CAC8431	
11	FFC	CDE7403	66	Button(SRC)	CAC8432	
12	FFC	CDE7727	67	Button(EQ)	CAC8433	
13	Screw	CMZ50P060FTC	68	Button	CAC8434	B
14	Case	CNB3155				
15	Panel	CNB3048	69	Button(RESET)	CAC8503	
			70	Spring	CBH2680	
16	Holder	CND2812	71	Cover	CNS7759	
17	Bracket	CND2815	72	Sheet	CNM9576	
18	Bracket	CND2816	73	Connector(CN5901)	CKS3965	
19	Bracket	CND2817				
20	Bracket	CND1947	74	Connector(CN5501)	CKS4657	
			75	Connector(CN5902)	CKS4658	
21	Holder	CND1948	76	Sub Grille Unit(UC model)	CXC4636	
22	Insulator	CNM8043		Sub Grille Unit(EW model)	CXC4635	
23	Insulator	CNM8571	77	Knob Unit(VOLUME)	CXC4641	C
24	Insulator	CNM8715				
25	Cover	CNM8874	78	Knob Unit(SELECT)	CXC4642	
			79	Button	CAC9276	
26	IC(IC2405)	PAL007A	80	Screw(M2x4)	CBA1734	
27	Spacer	CNM9246	81	Screw(M2.6x2.5)	CBA1777	
28	Panel	CNS7797	82	Screw(M2x4)	CBA1778	
29	CC Unit(UC model)	CWM9948				
	CC Unit(EW model)	CWM9947	83	Spring	CBH2681	
			84	Spring	CBH2682	
30	Screw	BMZ26P160FTC	85	Spring	CBH2790	
31	Terminal(CN100)	CKF1064	86	FFC	CDE7405	
32	Terminal(CN604)	CKF1064	87	Holder	CND1840	D
33	Terminal(CN605)	CKF1064				
34	Terminal(CN614)	CKF1064	88	Holder	CND1841	
			89	Insulator	CNM8510	
35	Terminal(CN615)	CKF1064	90	Arm	CNV8571	
36	Terminal(CN2601)	CKF1064	91	Arm	CNV8572	
37	Connector(CN802)	CKM1332	92	Arm	CNV8573	
38	Connector(CN2552)	CKS1940				
39	Connector(CN971)	CKS4822	93	Panel Unit	CXC2693	
			94	DVD Mechanism Module(MS3)	CXK6325	
40	Connector(CN608)	CKS3751	95	Fan Motor(M100)	CXM1284	
41	Connector(CN2701)	CKS3810	96	Fan Motor(M101)	CXM1289	
42	Connector(CN2)	CKS4052	97	Screw	ISS26P050FTC	
43	*****					E
44	Connector(CN609)	CKS4068	98	Screw	PMZ20P160FTC	
			99	Mother Tuner Unit(UC model)	CWM9946	
45	Connector(CN607)	CKS4132		Mother Tuner Unit(EW model)	CWM9945	
46	*****		100	Connector(CN2801)	CKS4871	
47	Connector(CN692)	CKS4473	101	Connector(CN2802)	CKS4822	
48	Connector(CN2551)	VKN1928				
49	Connector(CN731)	CKS4646	102	Connector(CN2803)	CKM1365	
			103	Connector(CN2804)	CKS4752	
50	Connector(CN691)	CKS4814	104	Holder	CND1956	
51	Shield	CND2822	105	Holder	CND2824	
52	Shield	CND2823	106	Sheet	CNM9536	
53	Shield	CND1951				F
54	Shield	CND1952				
55	Holder	CND1953				
56	Holder	CND1954				

2.4 NAVIGATION UNIT (2)

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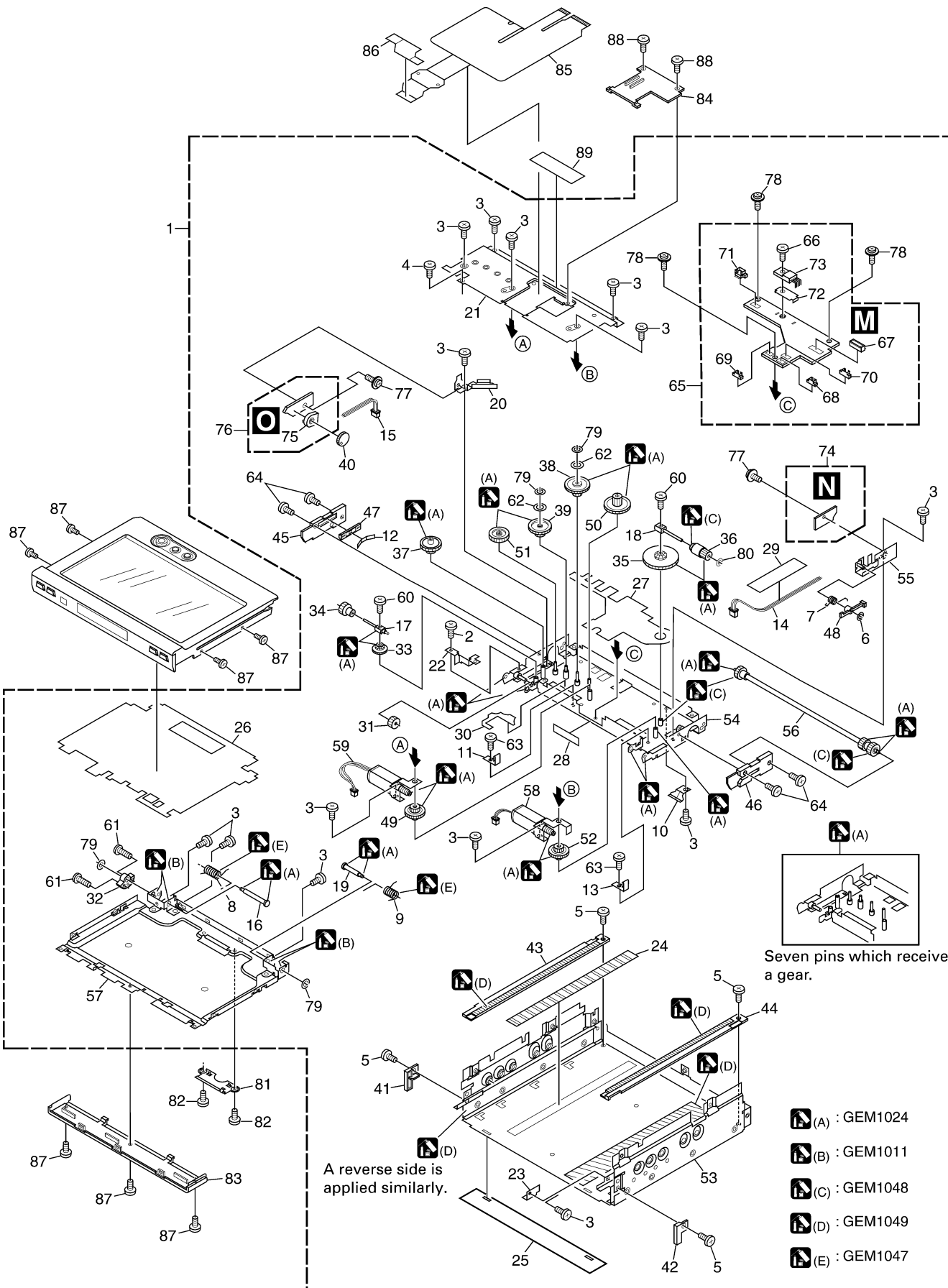
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NAVIGATION UNIT (2) SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	Drive Unit	CXB9508	51	Gear	CNV7524	A
2	Screw(M2x3)	CBA1082	52	Gear	CNV7529	
3	Screw(M2x2.5)	CBA1250	53	Chassis Unit	CXB9509	
4	Screw(M2x4)	CBA1277	54	Frame Unit	CXB9511	
5	Screw(M2x1.5)	CBA1615	55	Holder Unit	CXB9512	
6	Washer	CBF1038	56	Shaft Unit	CXB9513	
7	Spring	CBH2645	57	Holder Unit	CXB9514	
8	Spring	CBH2646	58	Motor Unit(M3001)(Position)	CXB9515	
9	Spring	CBH2647	59	Motor Unit(M3002)(Angle)	CXB9516	
10	Spring	CBL1585	60	Screw	CZB3082	B
11	Spring	CBL1586	61	Screw	CZB3083	
12	Spring	CBL1587	62	Washer	CZB3084	
13	Spring	CBL1642	63	Screw(M2x1.8)	CZB3085	
14	Cord Assy	CDE7047	64	Screw(M2x4)	CZB3088	
15	Cord Assy	CDE7213	65	Main Unit	CZW3087	
16	Shaft	CLA4270	66	Screw	BMZ26P050FTC	
17	Shaft	CLA4305	67	Connector(CN3801)	CKS4068	
18	Shaft	CLA4306	68	Connector(CN3802)	CKS4732	
19	Shaft	CLA4309	69	Connector(CN3803)	CKS4732	C
20	Bracket	CND1221	70	Connector(CN3807)	CKS4733	
21	Case	CND1229	71	Connector(CN3809)	CKS4733	
22	Holder	CND1318	72	Heat Sink	CND1228	
23	Holder	CND1449	73	IC(IC3801)	BA00AST	
24	Sheet	CNM8522	74	SW Unit	CZW3088	
25	Sheet	CNM8037	75	Volume(VR3841)	CCW1025	
26	Insulator	CNM8048	76	Volume Unit	CZW3089	
27	Insulator	CNM8158	77	Screw	IMS20P020FTC	
28	Sheet	CNM8159	78	Screw	IMS20P030FZK	D
29	Tape	CNM8160	79	Washer	YE15S	
30	Insulator	CNM8294	80	Washer	CZB3089	
31	Gear	CNR1664	81	Holder	CND2813	
32	Gear	CNR1665	82	Screw	JFZ20P022FNI	
33	Gear	CNR1677	83	Cover	CNS7760	
34	Gear	CNR1678	84	Holder	CNV8569	
35	Gear	CNR1679	85	Flexible PCB	CNP7621	
36	Gear	CNR1680	86	Shield	CNM8969	
37	Gear	CNR1688	87	Screw(M2x2)	CBA1753	E
38	Gear	CNR1708	88	Screw(M2x3)	CBA1797	
39	Gear	CNR1709	89	Sheet	CNM9201	
40	Gear	CNV7383				
41	Holder	CNV7384				
42	Holder	CNV7385				
43	Rack	CNV7386				
44	Rack	CNV7387				
45	Slider	CNV7388				
46	Slider	CNV7389				
47	Holder	CNV7390				F
48	Arm	CNV7391				
49	Gear	CNV7522				
50	Gear	CNV7523				

2.5 NAVIGATION UNIT (3)

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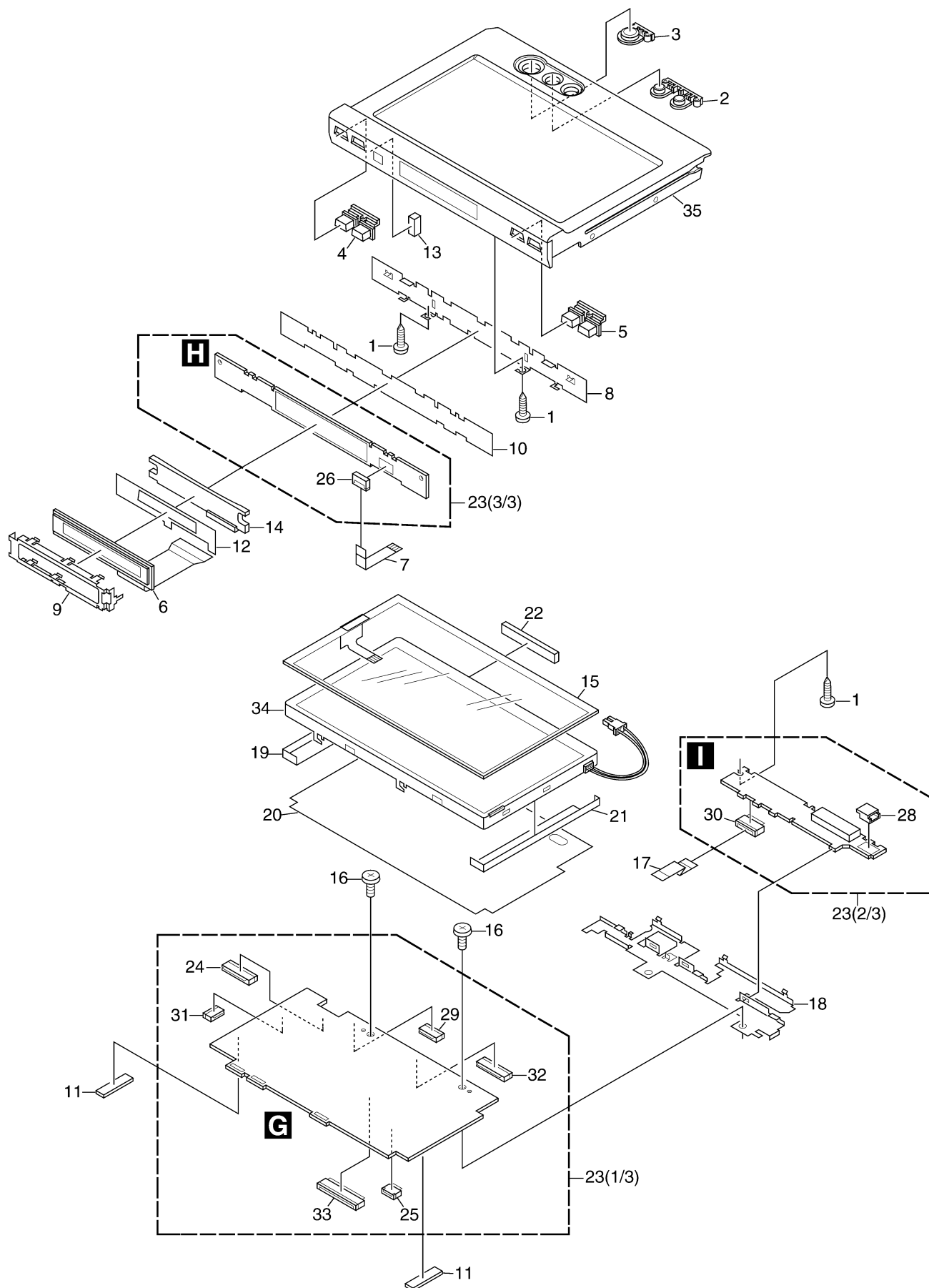
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NAVIGATION UNIT (3) SECTION PARTS LIST

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	Screw	BPZ20P060FTC
2	Button(NAVI/AV)	CAC8427
3	Button(NAVI MENU)	CAC8428
4	Button(OPEN/CLOSE)	CAC8430
5	Button(DISP,PGM)(UC model)	CAC8504
	Button(DISP,TA)(EW model)	CAC8429
6	LCD	CAW1870
7	FFC	CDE7488
8	Holder	CND2010
9	Holder	CND2825
10	Insulator	CNM8616
11	Spacer	CNM8707
12	Sheet	CNM8858
13	Cushion	CNM9148
14	Lighting Conductor	CNV8570
15	Touch Panel	CSX1083
16	Screw(M2x2.5)	CBA1615
17	FFC	CDE7196
18	Holder	CND2418
19	Sheet	CNM7784
20	Insulator	CNM8031
21	Sheet	CNM8265
22	Conductor	CNM8857
23	Monitor Unit(UC model)	CWM9950
	Monitor Unit(EW model)	CWM9949
24	Connector(CN4801)	CKS3991
25	Connector(CN4005)	CKS4054
26	Connector(CN4301)	CKS4054
27	•••••	
28	Connector(CN5002)	CKS4428
29	Connector(CN4003)	CKS4595
30	Connector(CN5001)	CKS4595
31	Connector(CN4681)	CKS4675
32	Connector(CN4002)	CKS4793
33	Connector(CN4701)	CKS4818
34	LCD Panel	CWX3056
35	Display Sub Grille Unit(UC model)	CXC4634
	Display Sub Grille Unit(EW model)	CXC4633

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2.6 HIDEAWAY UNIT AND CORD ASSY

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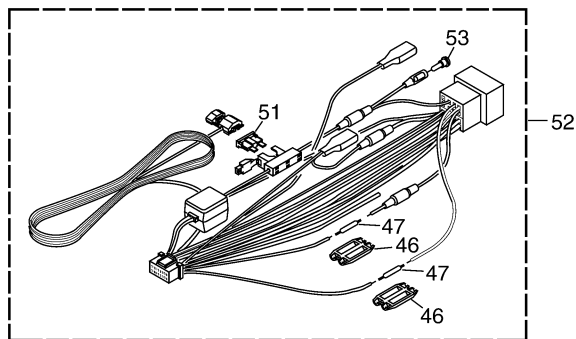
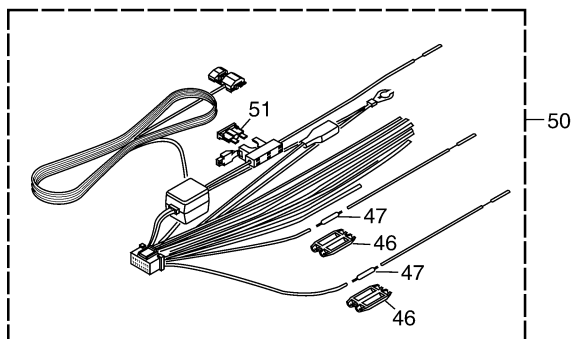
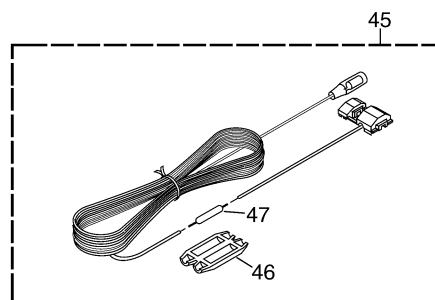
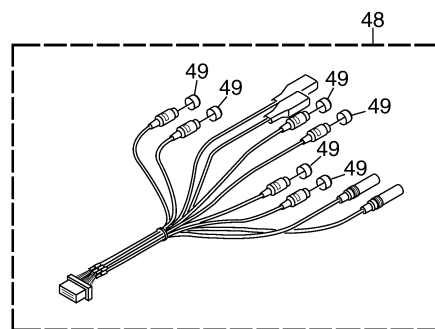
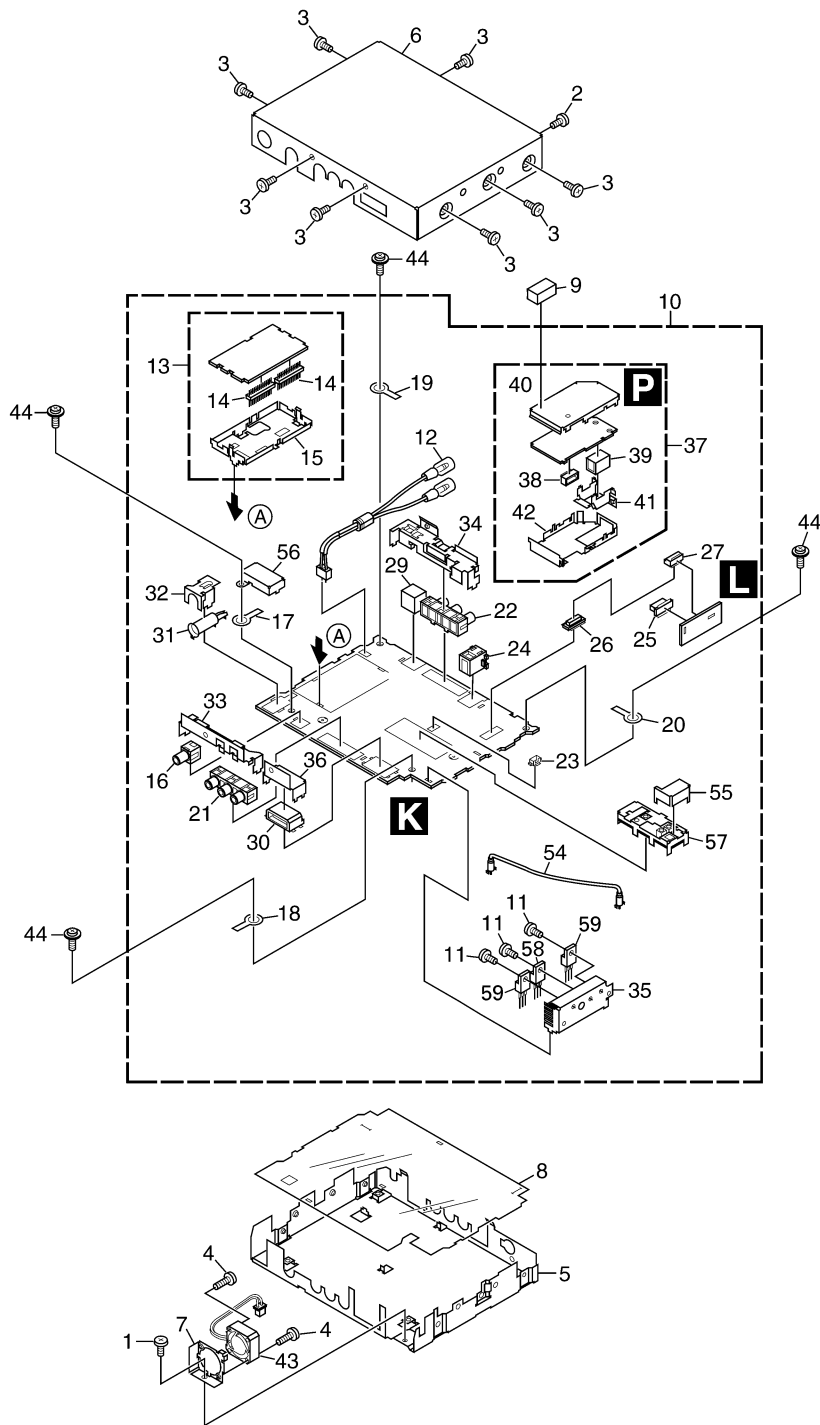
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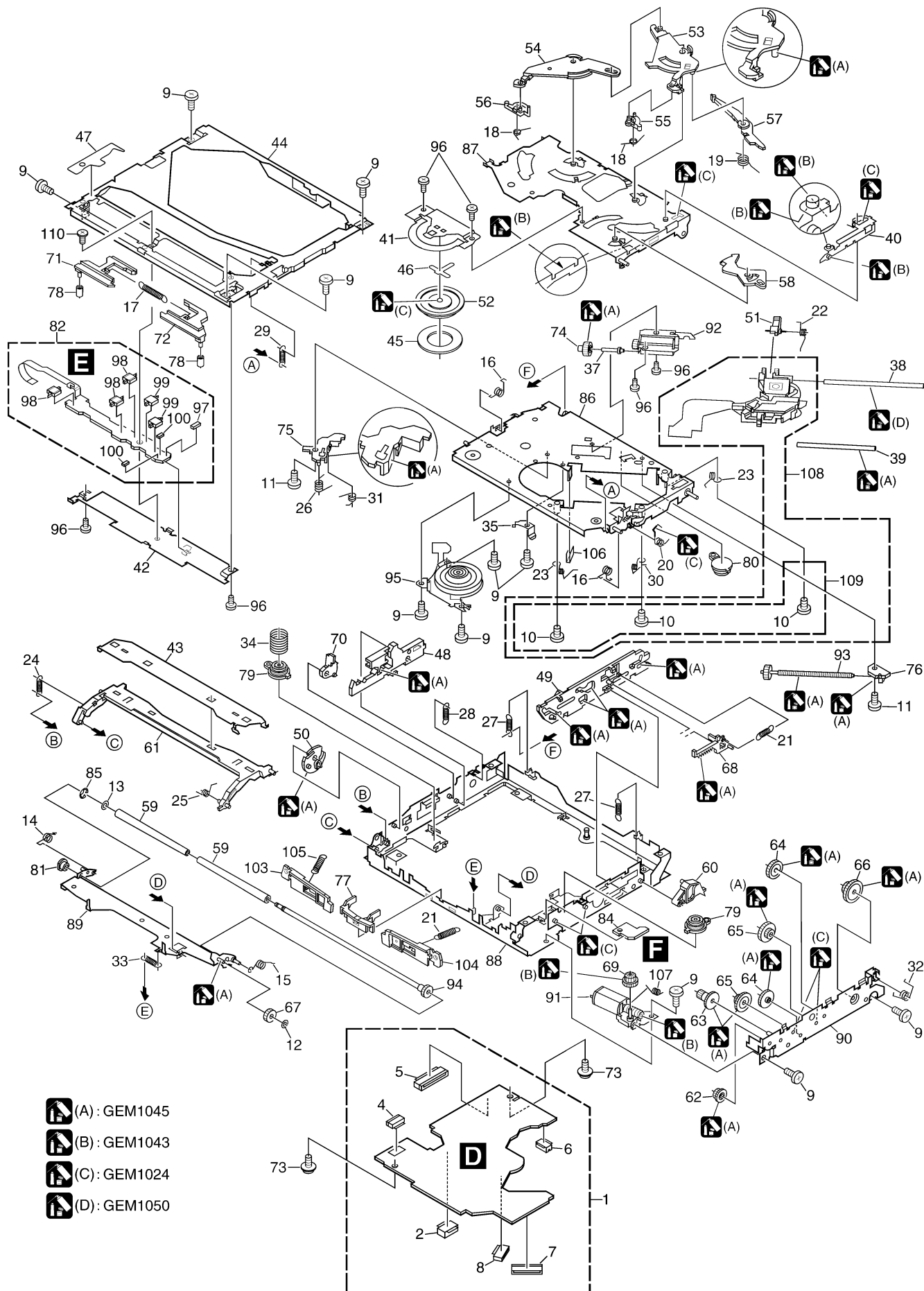
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HIDEAWAY UNIT AND CORD ASSY SECTION PARTS LIST

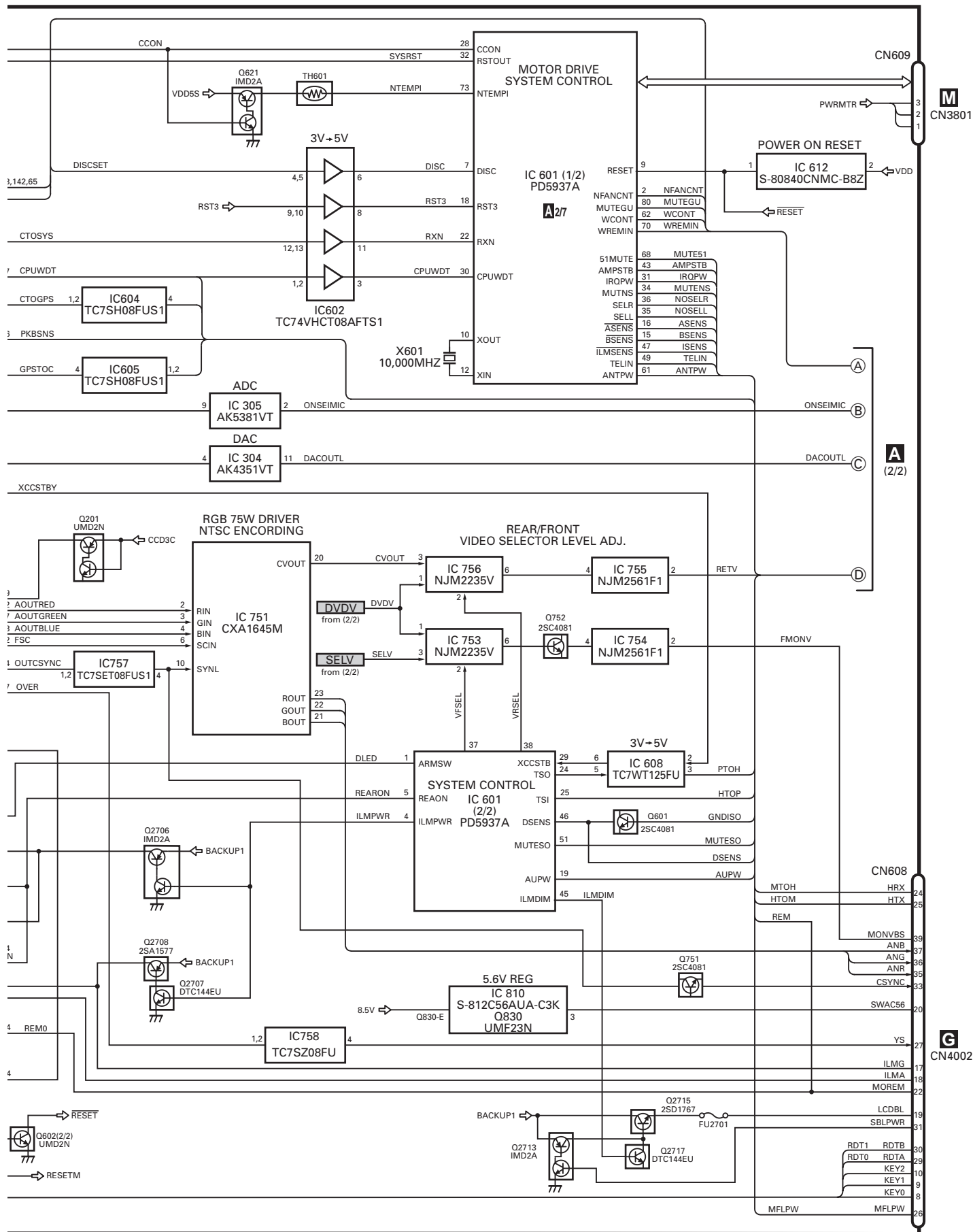
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	
1	Screw	BMZ26P030FTC	47	Resistor	RS1/2PMF102J	A
2	Screw	BMZ26P060FZK	48	Cord Assy	CDE7399	
3	Screw	BSZ26P060FTC	49	Cap	CNV6727	
4	Screw(M2.6x12)	CBA1620	50	Cord Assy(UC model)	CDE7487	
5	Chassis	CNA2697	⚠ 51	Fuse(10A)	CEK1136	
6	Case(UC model)	CNB3154	52	Cord Assy(EW model)	CDE7486	
	Case(EW model)	CNB3153	53	Cap(EW model)	CKX-003	
7	Holder	CND2821	54	Cord(EW model)	CDH1332	
8	Insulator	CNM8565	55	Shield(EW model)	CND2814	
9	Gasket	CNM8954	56	Shield(EW model)	CND1964	B
10	Mother Tuner Unit(UC model)	CWM9946	57	Tuner Unit(Y1801)(EW model)	CWE1674	
	Mother Tuner Unit(EW model)	CWM9945	58	Transistor(Q1907)	2SB1629	
11	Screw	BMZ26P060FTC	59	Transistor(Q1908,1909)	2SD2396	
12	Cord Assy	CDE7397				
13	FM/AM Tuner Unit(UC model)	CWE1651				
	FM/AM Tuner Unit(EW model)	CWE1650				
14	Connector(CN101,102)	CKS4653				
15	Holder	CND1432				
16	Pin Jack(CN1351)	CKB1065				
17	Terminal(CN1401)	CKF1064				C
18	Terminal(CN1403)	CKF1064				
19	Terminal(CN1903)	CKF1064				
20	Terminal(CN1904)	CKF1064				
21	Pin Jack(CN1301)	CKB1071				
22	Pin Jack(CN1701)	CKB1071				
23	Connector(CN1950)	CKS4822				
24	Connector(CN1101)	CKS3414				
25	Connector(CN551)	CKS5205				
26	Connector(CN1841)	CKS5205				D
27	Connector(CN552)	CKS5204				
28	.....				
29	Connector(CN1201)	CKS4590				
30	Connector(CN1001)	CKS4646				
31	Antenna Jack(CN1402)	CKX1056				
32	Holder	CND2818				
33	Holder	CND1901				
34	Holder	CND1902				
35	Holder	CND2819				E
36	Holder	CND2820				
37	GPS Unit(UC model)	CWX2960				
	GPS Unit(EW model)	CWX2929				
38	Connector(CN461)	CKS4280				
39	Connector(CN504)	CKS4432				
40	Shield	CNC9192				
41	Holder	CNC9252				
42	Shield	CND1161				
43	Fan Motor(M102)	CXM1293				F
44	Screw	ISS26P060FTC				
45	Cord	CDE6825				
46	Cap	CNS1472				

2.7 DVD MECHANISM MODULE

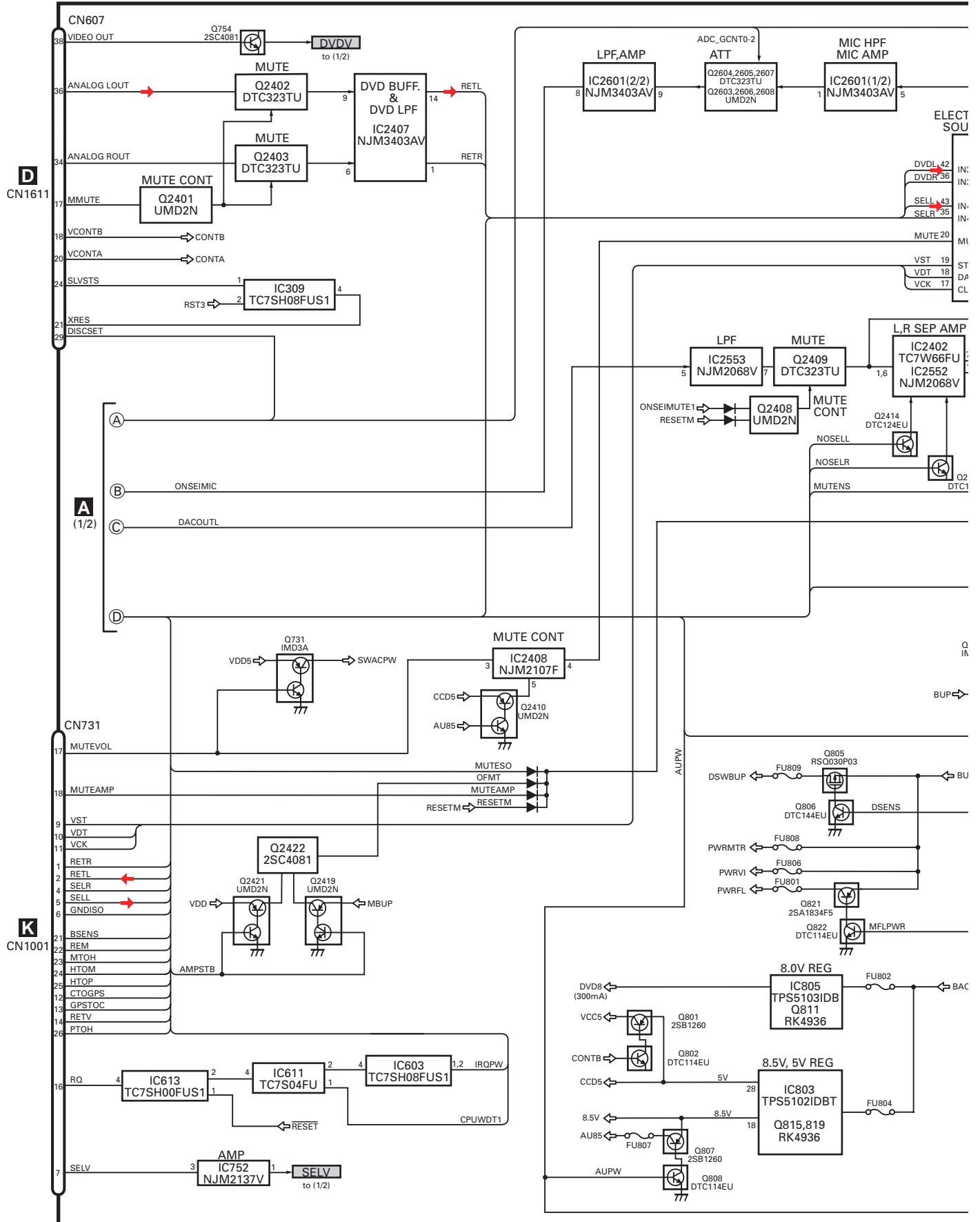


DVD MECHANISM MODULE SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.	
1	DVD Core Unit(MS3)	CWX2941	* 57	Arm	CNV7163	
2	Connector(CN1501)	CKS4282	58	Arm	CNV7164	A
3	Connector(CN1401)	CKS4052	59	Roller	CNV7165	
4	Connector(CN1202)	CKS4624	60	Arm	CNV7166	
5	Connector(CN1611)	CKS4052				
			61	Guide	CNV8093	
6	Connector(CN1603)	CKS4374	62	Gear	CNV7169	
7	Connector(CN1101)	CKS4625	63	Gear	CNV7170	
8	Connector(CN1201)	CKS4067	64	Gear	CNV7171	
9	Screw	BMZ20P020FTC	65	Gear(Black)	CNV7172	
10	Screw(M2 x 3.5)	CBA1571				
			66	Gear	CNV7173	
11	Screw(M2 x 2.5)	CBA1623	67	Gear	CNV7174	
12	Washer	CBF1038	68	Rack	CNV7175	B
13	Washer	CBF1064	69	Gear	CNV7176	
14	Spring	CBH2586	70	Arm	CNV8077	
15	Spring	CBH2587				
			71	Lever	CNV7178	
16	Spring	CBH2588	72	Lever	CNV7179	
17	Spring	CBH2589	73	Screw	IMS20P030FTC	
18	Spring	CBH2590	74	Gear	CNV7181	
19	Spring	CBH2591	75	Holder	CNV7183	
20	Spring	CBH2592				
			76	Holder	CNV7184	
21	Spring	CBH2593	77	Guide	CNV7745	
22	Spring	CBH2594	78	Roller	CNV7344	
23	Spring	CBH2595	79	Damper	CNV7470	C
24	Spring	CBH2596	80	Damper	CNV7471	
25	Spring	CBH2597				
			81	Collar	CNV7645	
26	Spring	CBH2598	82	Compound Unit(A)	CWX3154	
27	Spring	CBH2599	83	.....	
28	Spring	CBH2600	84	Compound Unit(B)	CWX3156	
29	Spring	CBH2601	85	Washer	YE20FTC	
30	Spring	CBH2602				
			86	Chassis Unit	CXC3629	
31	Spring	CBH2603	87	Arm Unit	CXB8681	
32	Spring	CBH2604	88	Frame Unit	CXB8683	
33	Spring	CBH2605	89	Arm Unit	CXC4701	D
34	Spring	CBH2711	90	Bracket Unit	CXB8685	
35	Spring	CBL1564				
			91	Motor Unit(LOADING)(M1)	CXC4659	
36	.....		92	Motor Unit(CARRIAGE)(M2)	CXC4314	
37	Shaft	CLA3881	93	Screw Unit	CXB8689	
38	Shaft	CLA4206	94	Roller Unit	CXB8690	
39	Shaft	CLA4207	95	Motor(SPINDLE)(M3)	CXM1308	
40	Lever	CNC9933				
			96	Screw	JFZ20P018FTC	
41	Holder	CNC9939	97	Photo-transistor(Q1299)	CPT231SCTD	
42	Holder	CND2251	98	Spring Switch(S1201,1202,1203)	CSN1069	
43	Holder	CNC9941	99	Spring Switch(S1204,1205)	CSN1070	
44	Frame	CND2250	100	Resistor(R1298,1299)	RS1/16S0R0J	E
45	Sheet	CNM6883				
			101	.....	
46	Sheet	CNM8283	102	.....	
47	Sheet	CNM8643	103	Arm	CNV7742	
48	Lever	CNV8076	104	Arm	CNV7743	
49	Lever	CNV7155	105	Spring	CBH2710	
50	Cam	CNV7156				
			106	Spring	CBL1643	
51	Rack	CNV7157	107	Spring	CBH2712	
52	Clamper	CNV7158	108	Pickup Unit(Service)(Screw)	GXX1234	
53	Arm	CNV7159	109	Screw Assy	CXX1750	
54	Arm	CNV7160	110	Screw(M1.4 x 1.4)	CBA1787	F
55	Arm	CNV7161				
56	Arm	CNV7162				



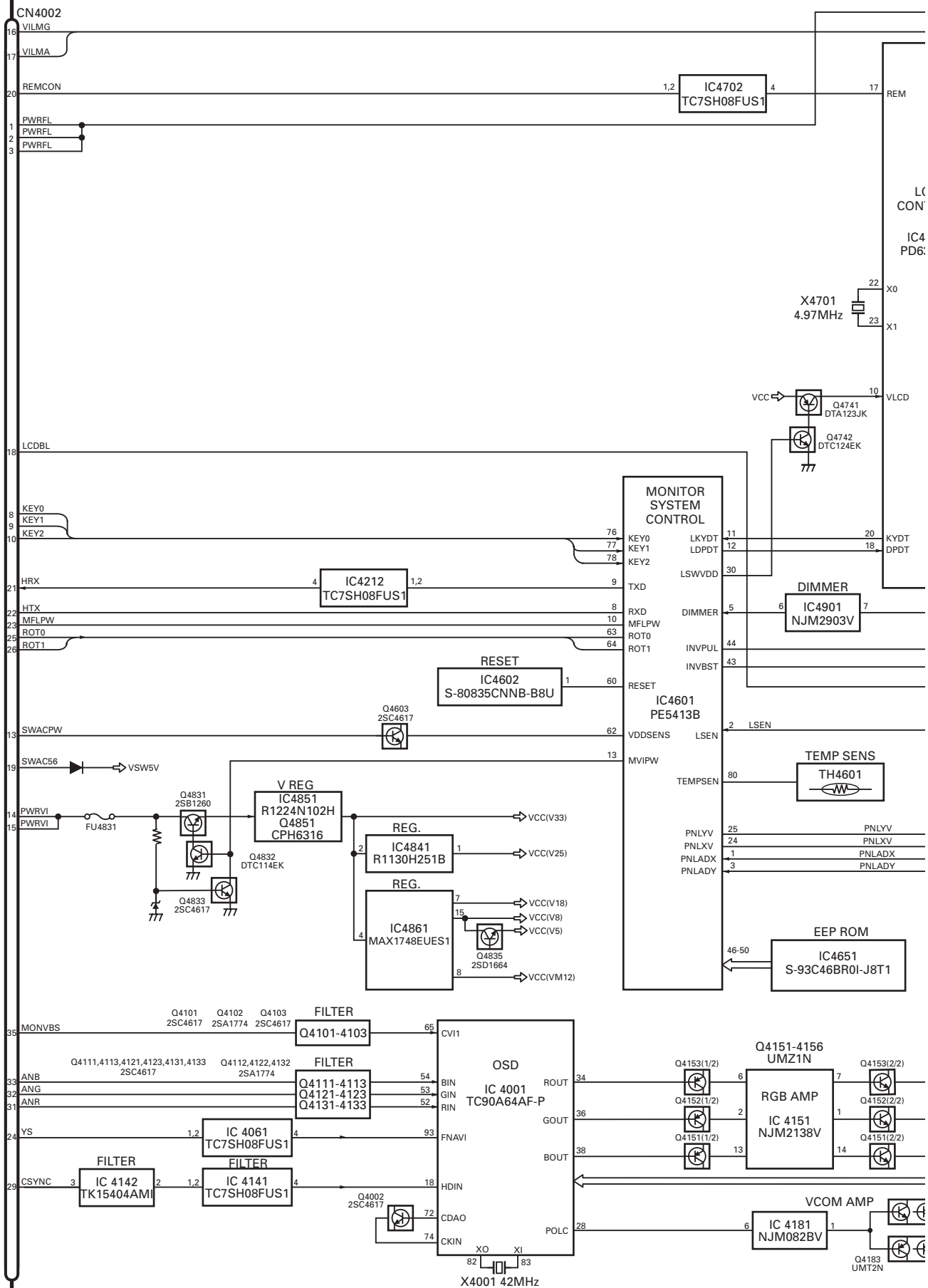
A CC UNIT (2/2)



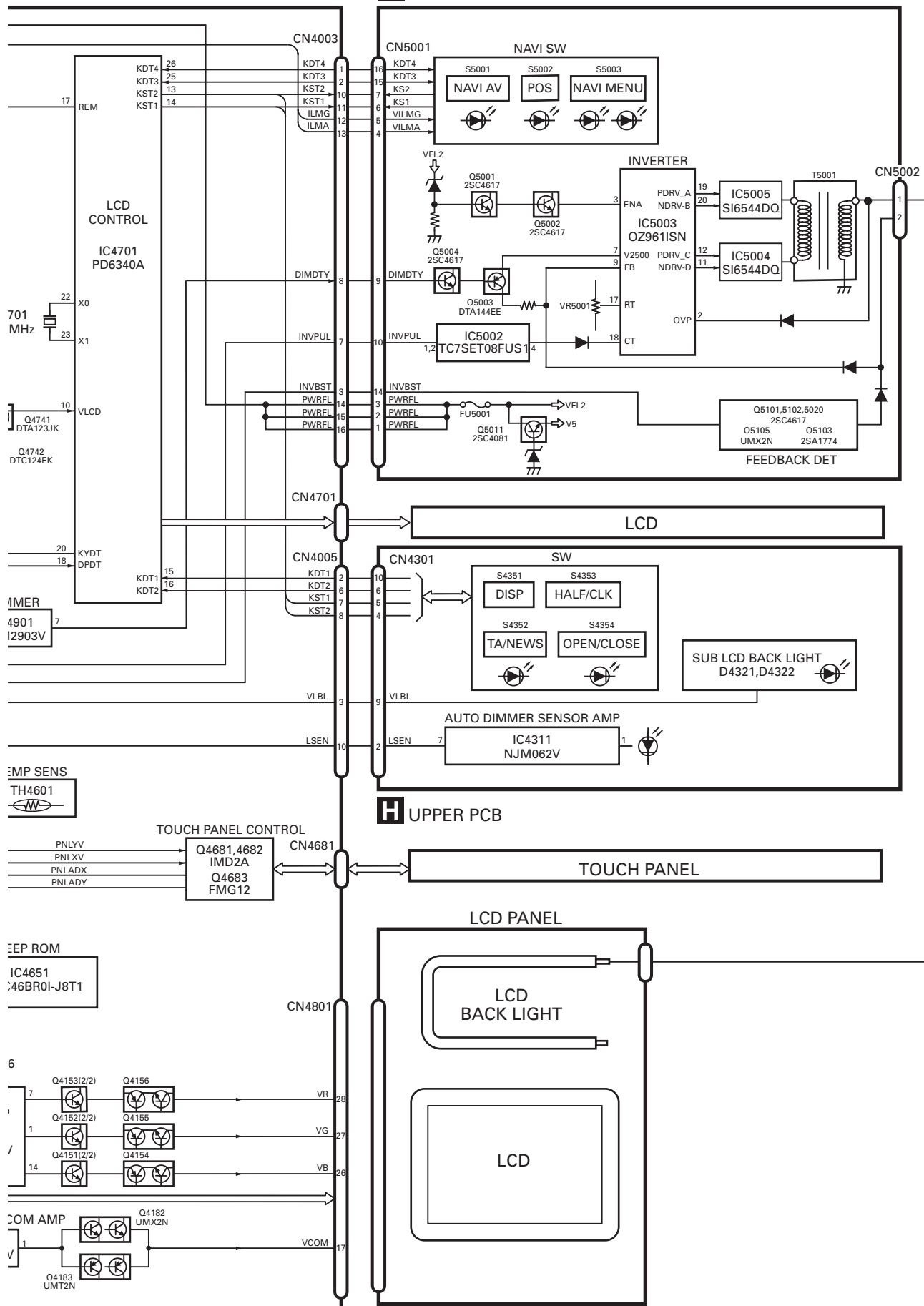


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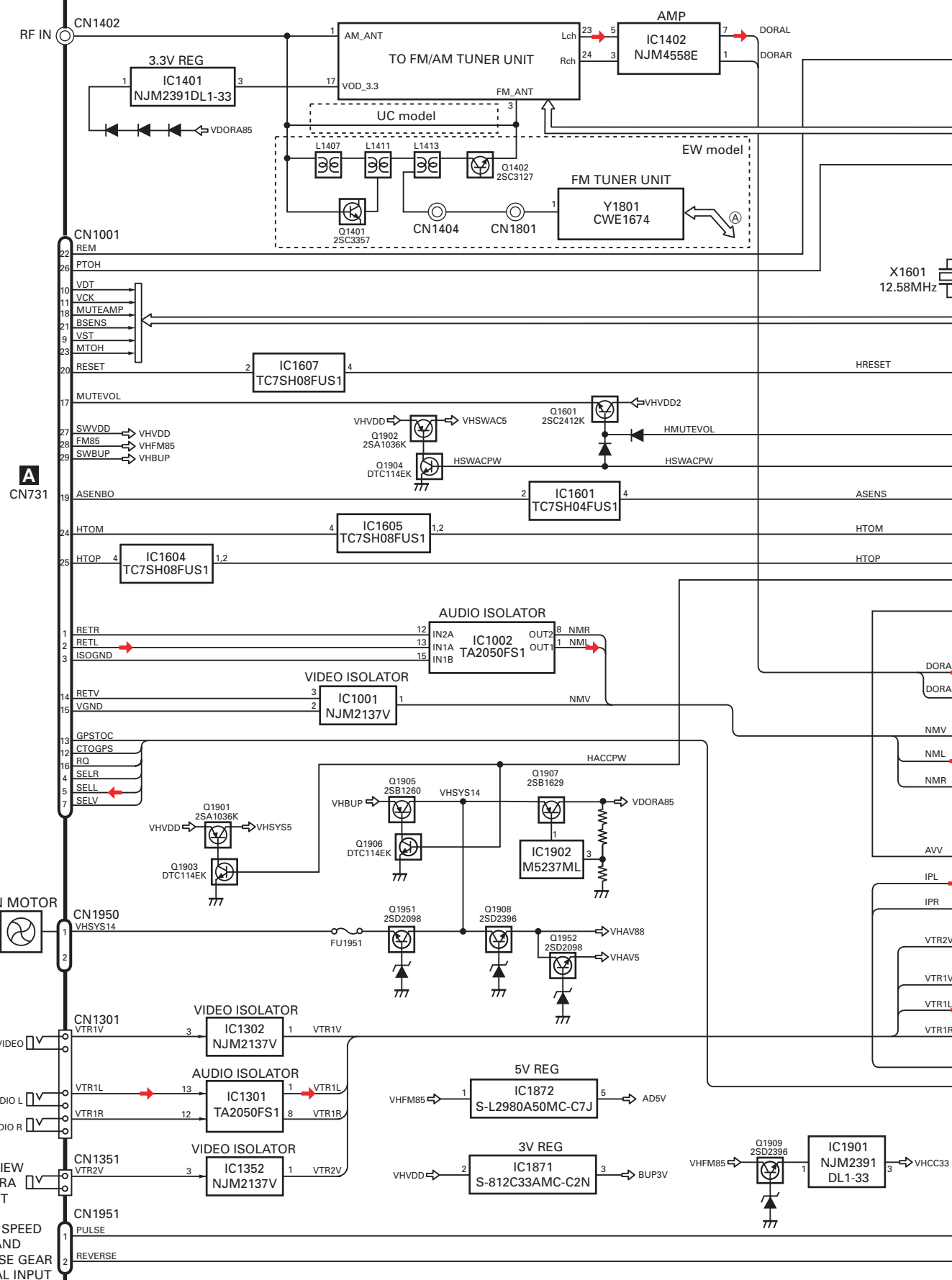
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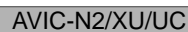


I INVERTER PCB

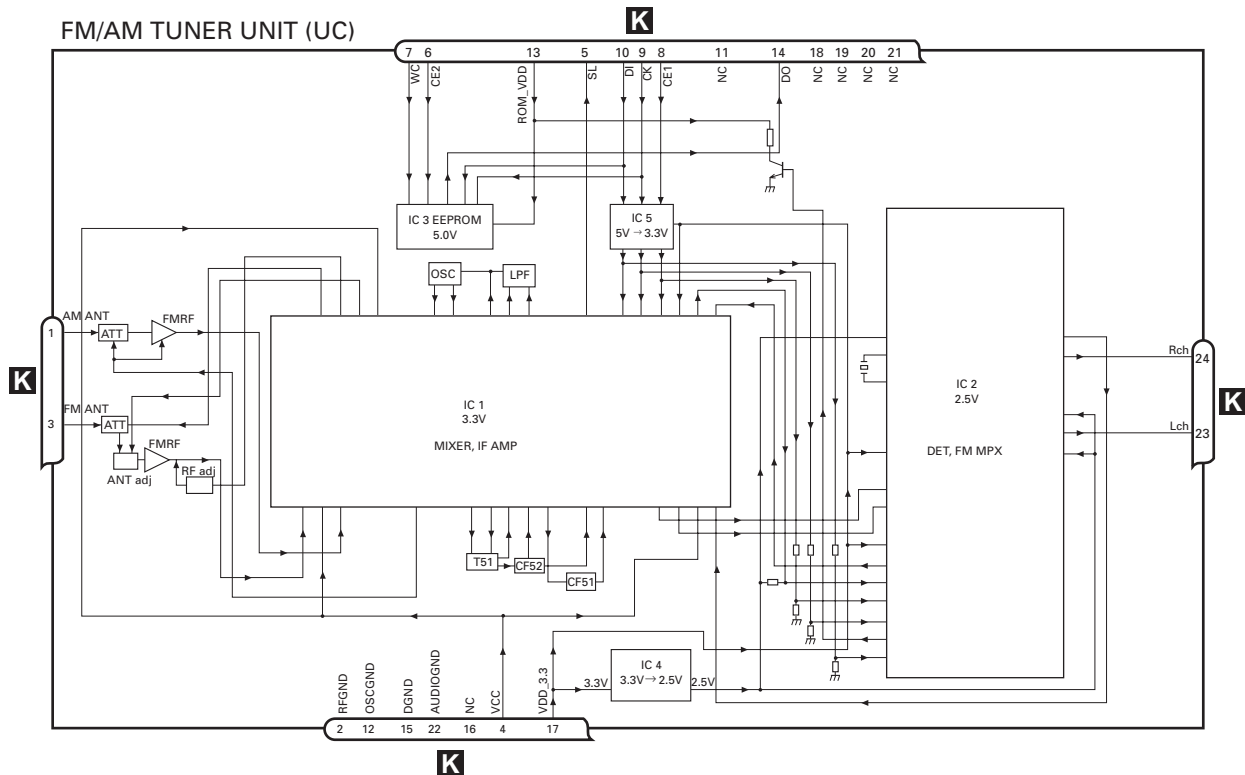


K MOTHER PCB

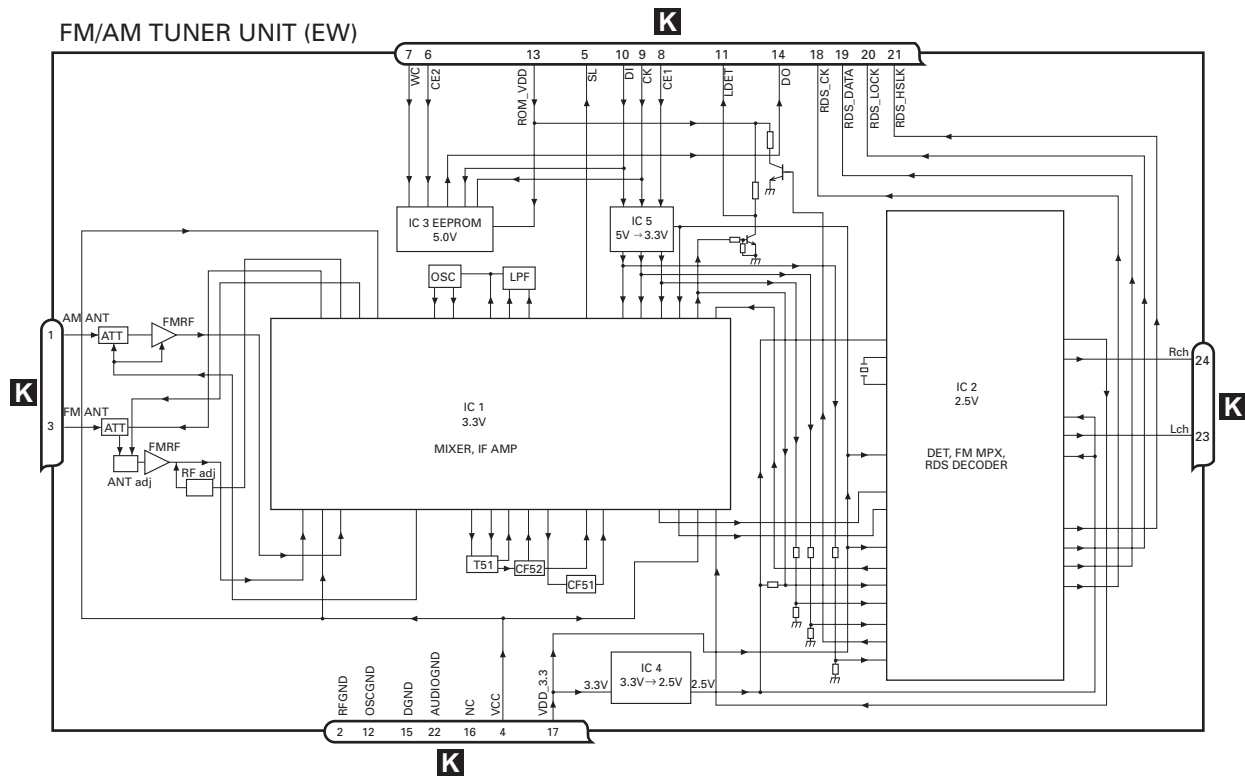




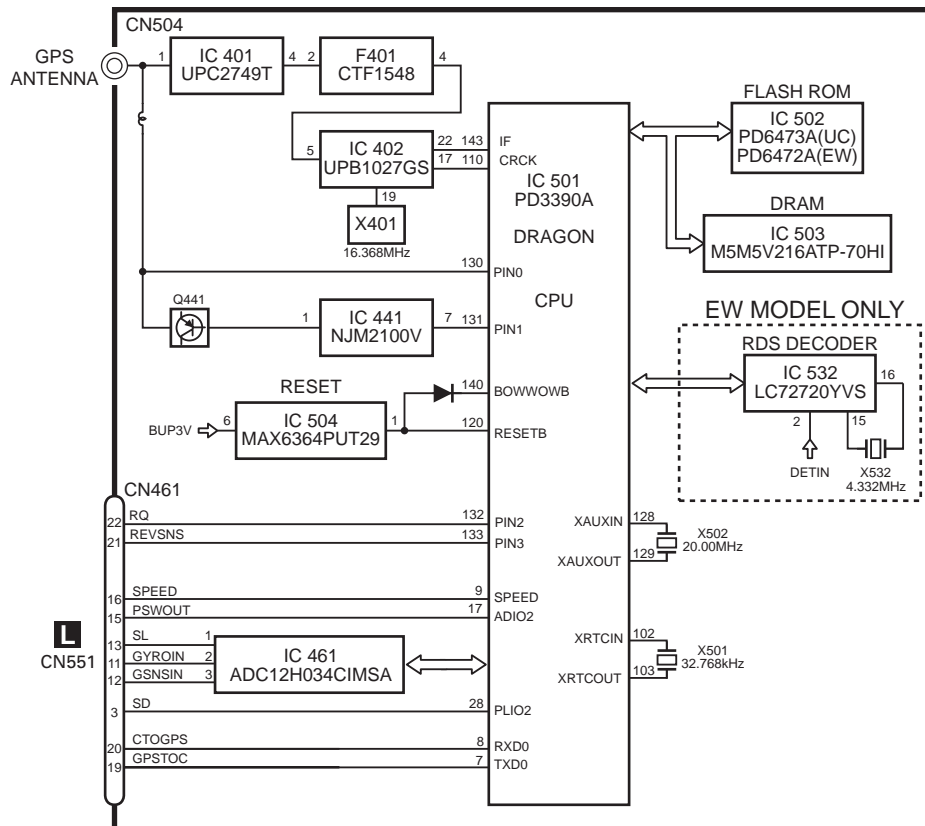
FM/AM TUNER UNIT (UC)



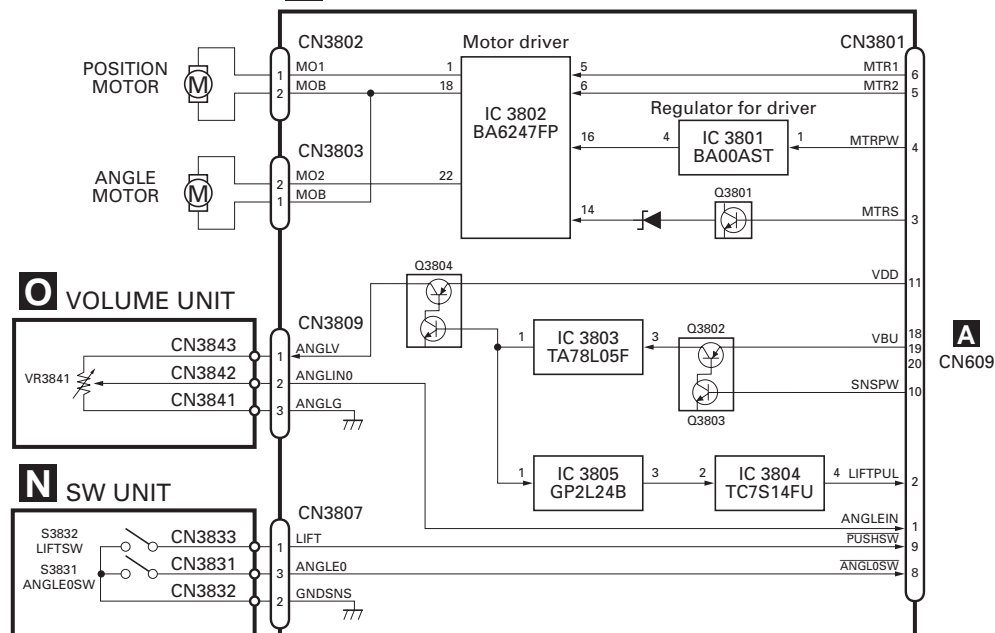
FM/AM TUNER UNIT (EW)



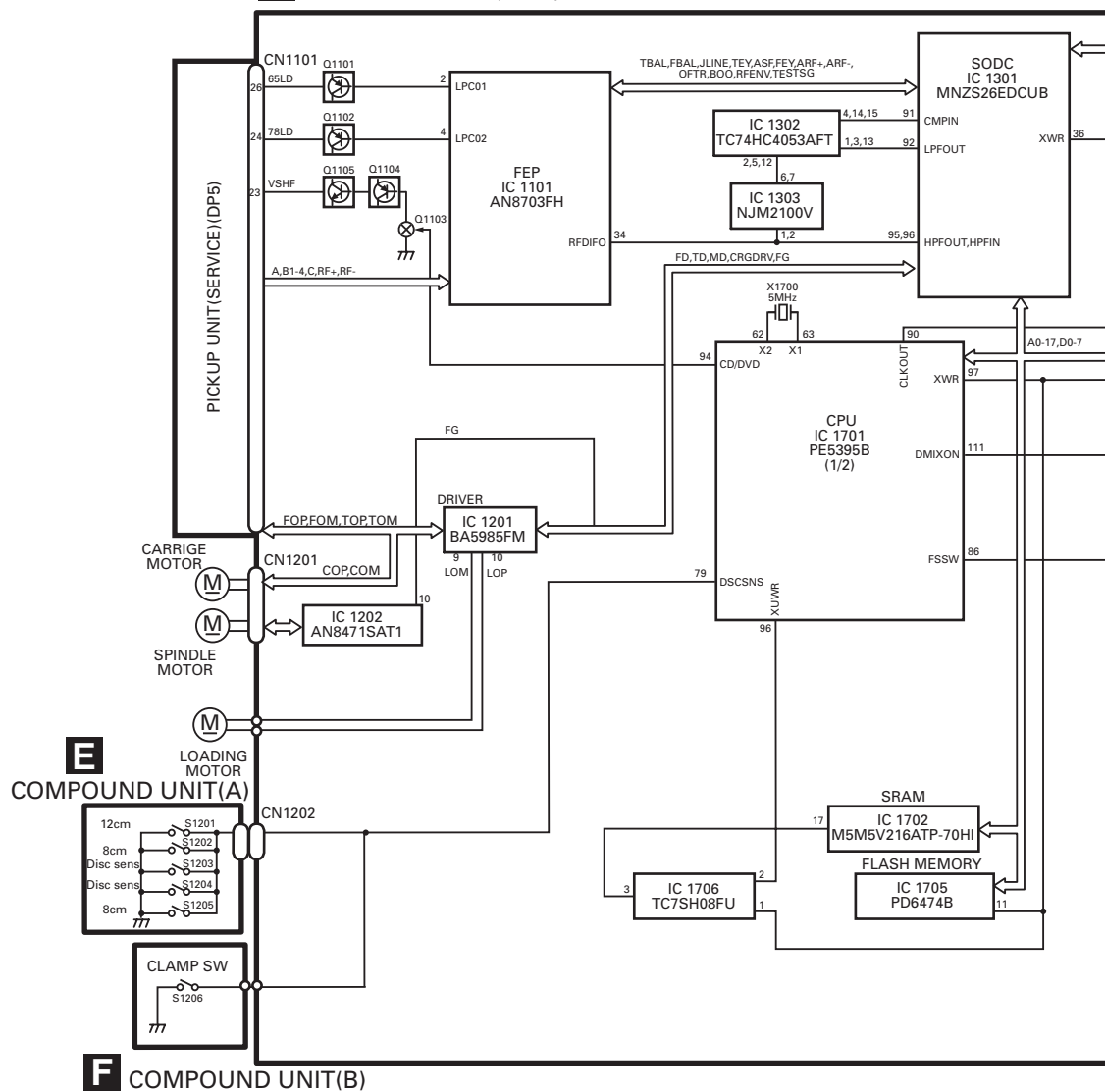
P GPS UNIT

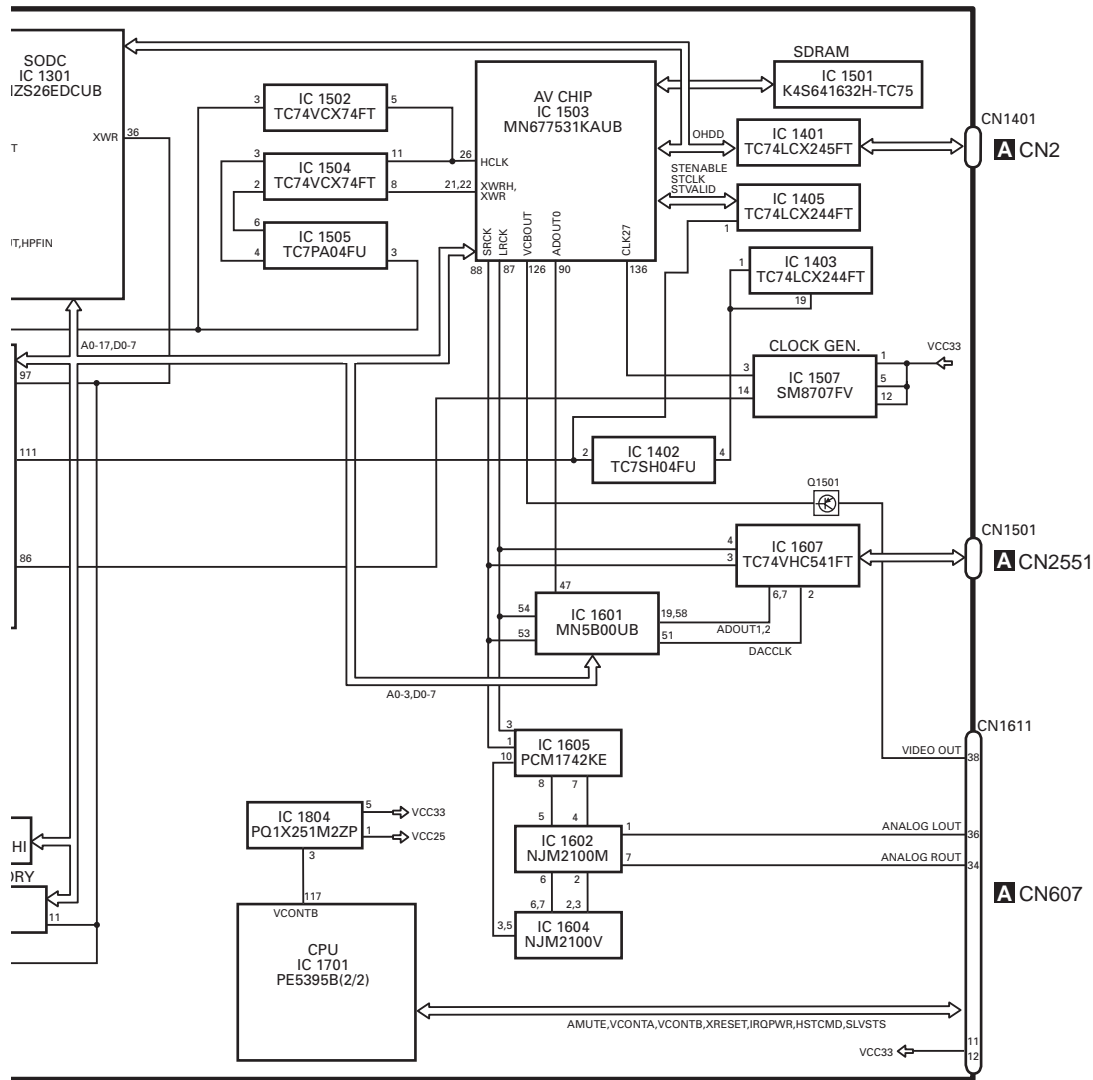


M MAIN UNIT

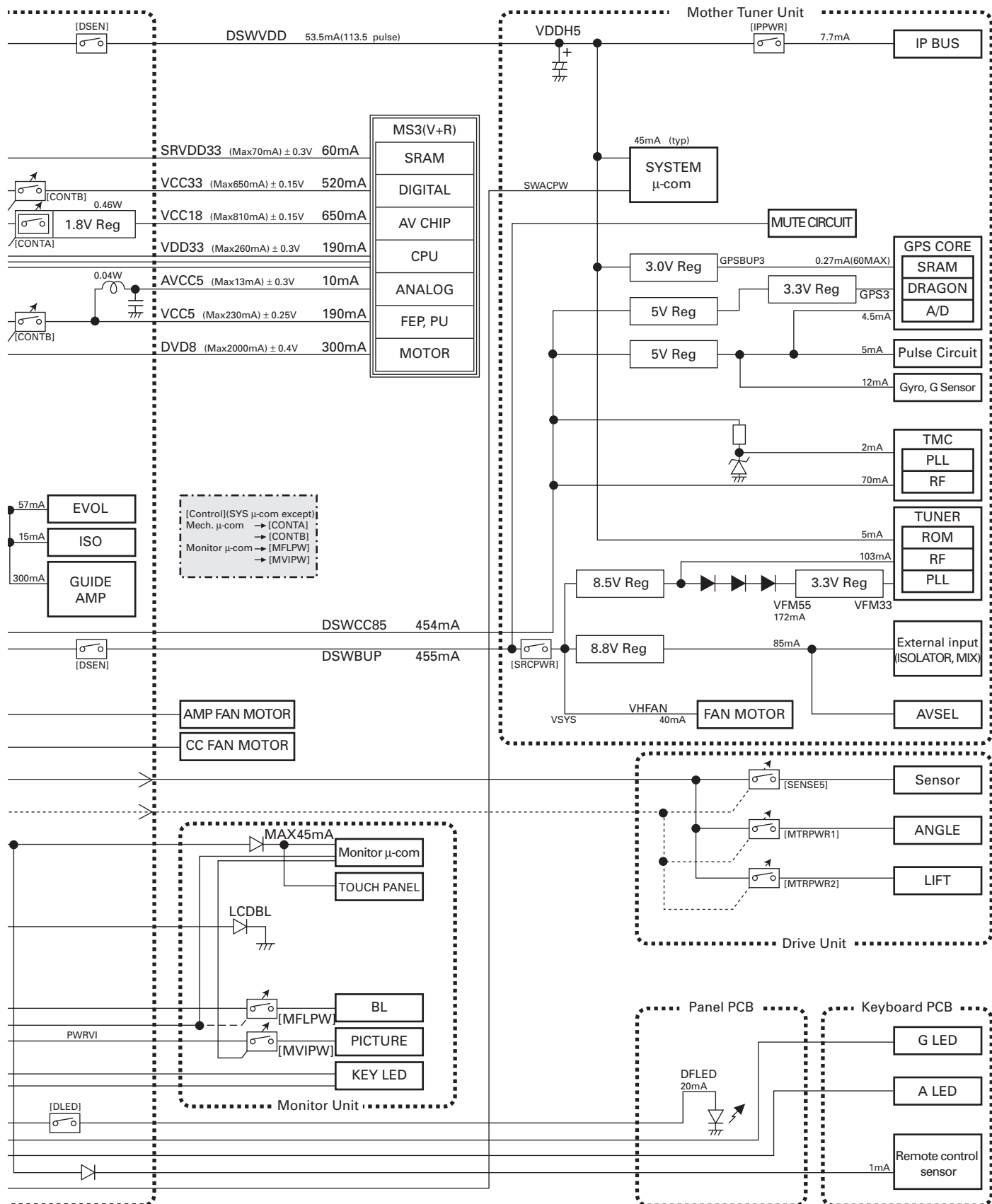


D DVD CORE UNIT (MS3)





F



3.2 OVERALL CONNECTION DIAGRAM


Note: When ordering service parts, be sure to refer to "EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".

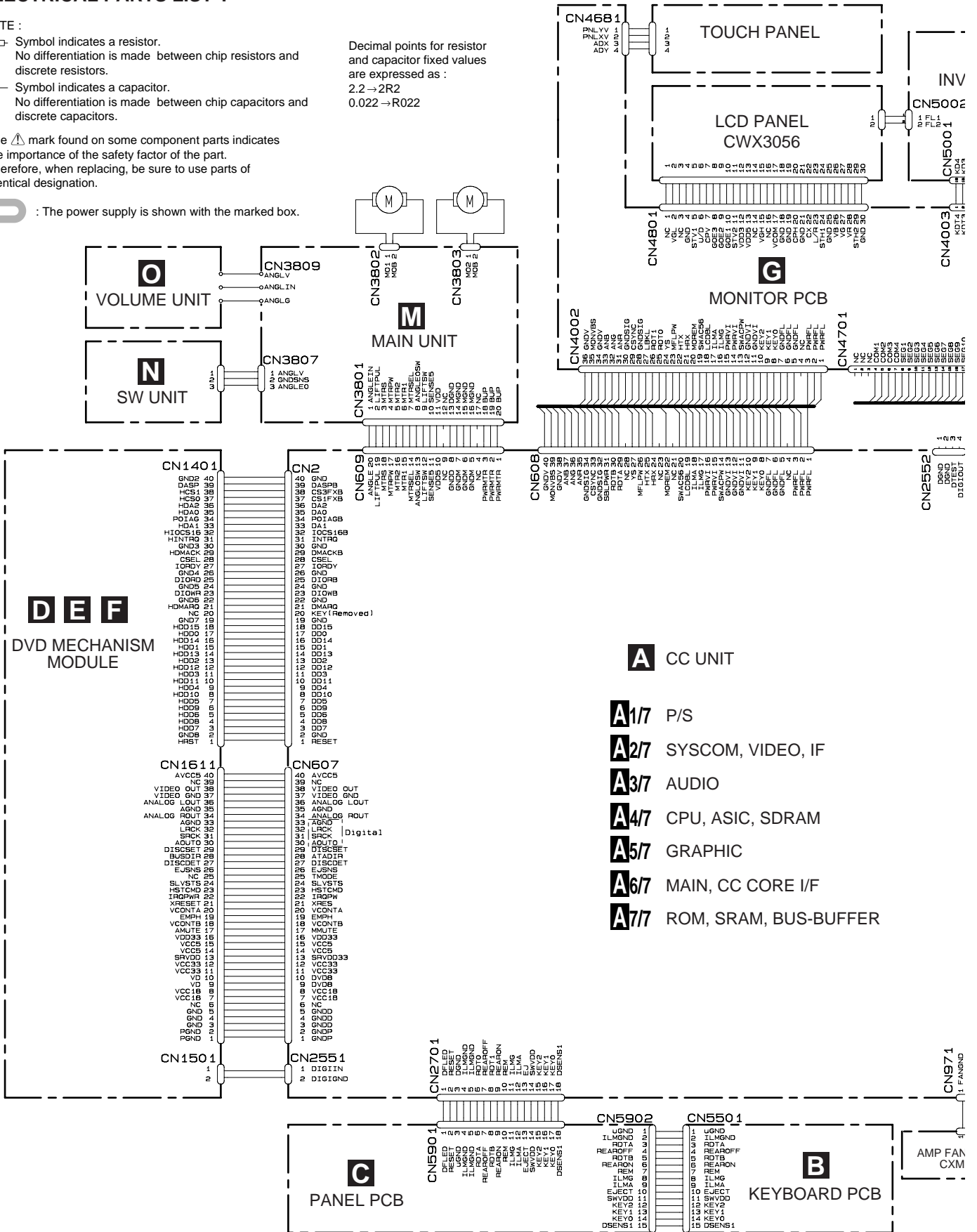
NOTE :

- Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
- |— Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as :
2.2 → 2R2
0.022 → R022

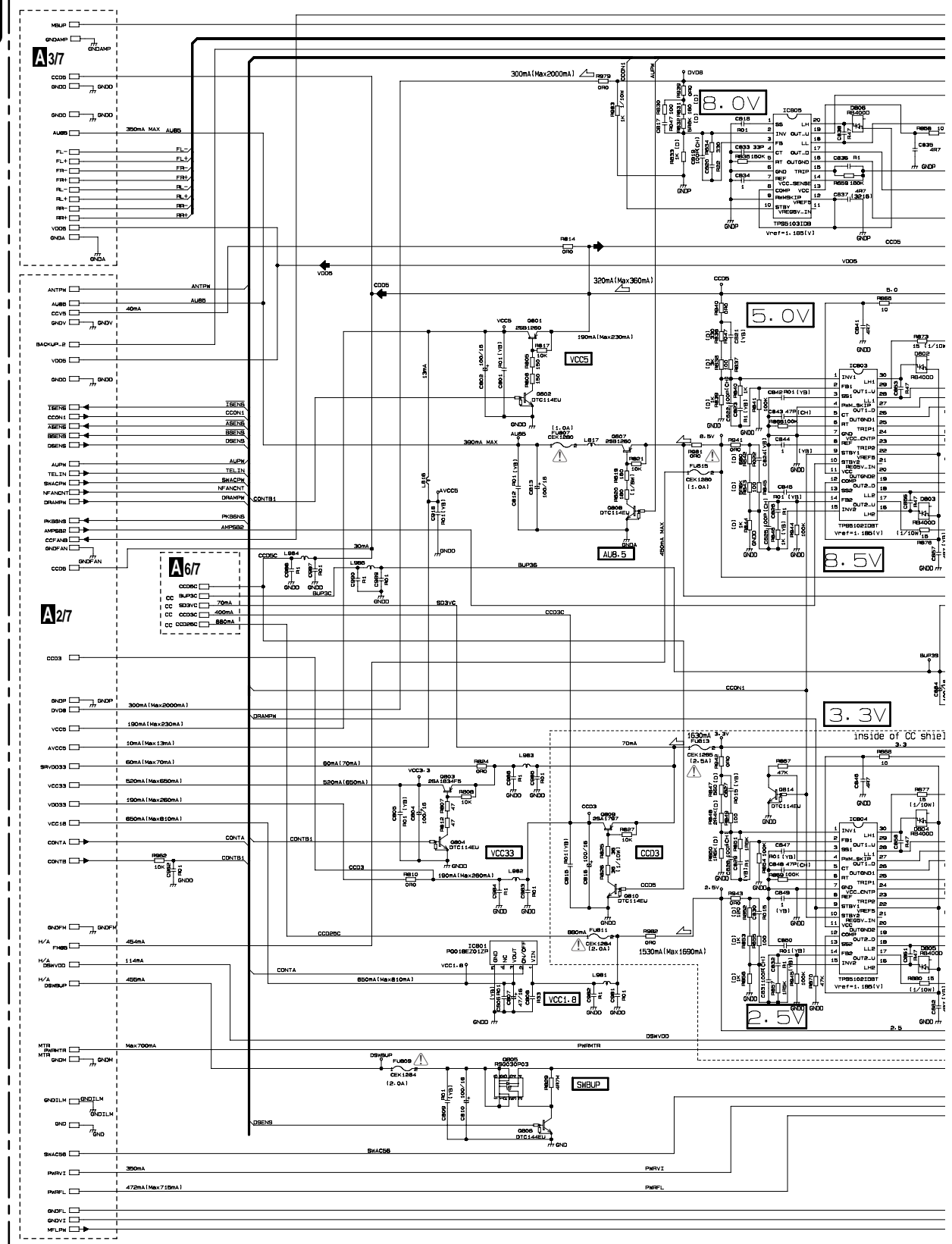
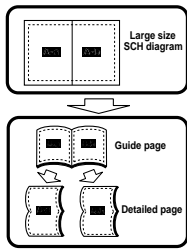
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

 : The power supply is shown with the marked box.



3.3 CC UNIT (P/S)(GUIDE PAGE)

A-a 1/7



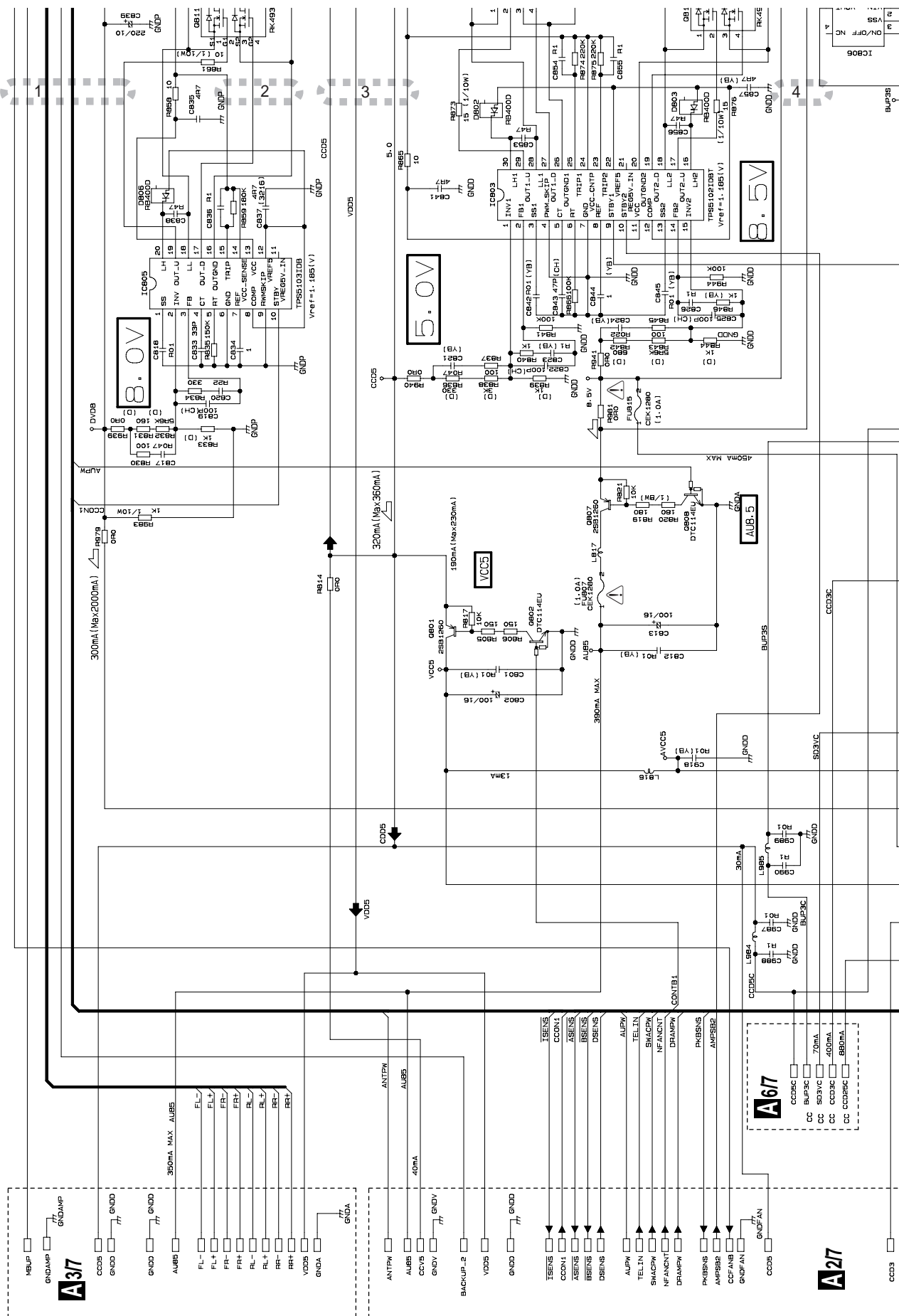
A1/7



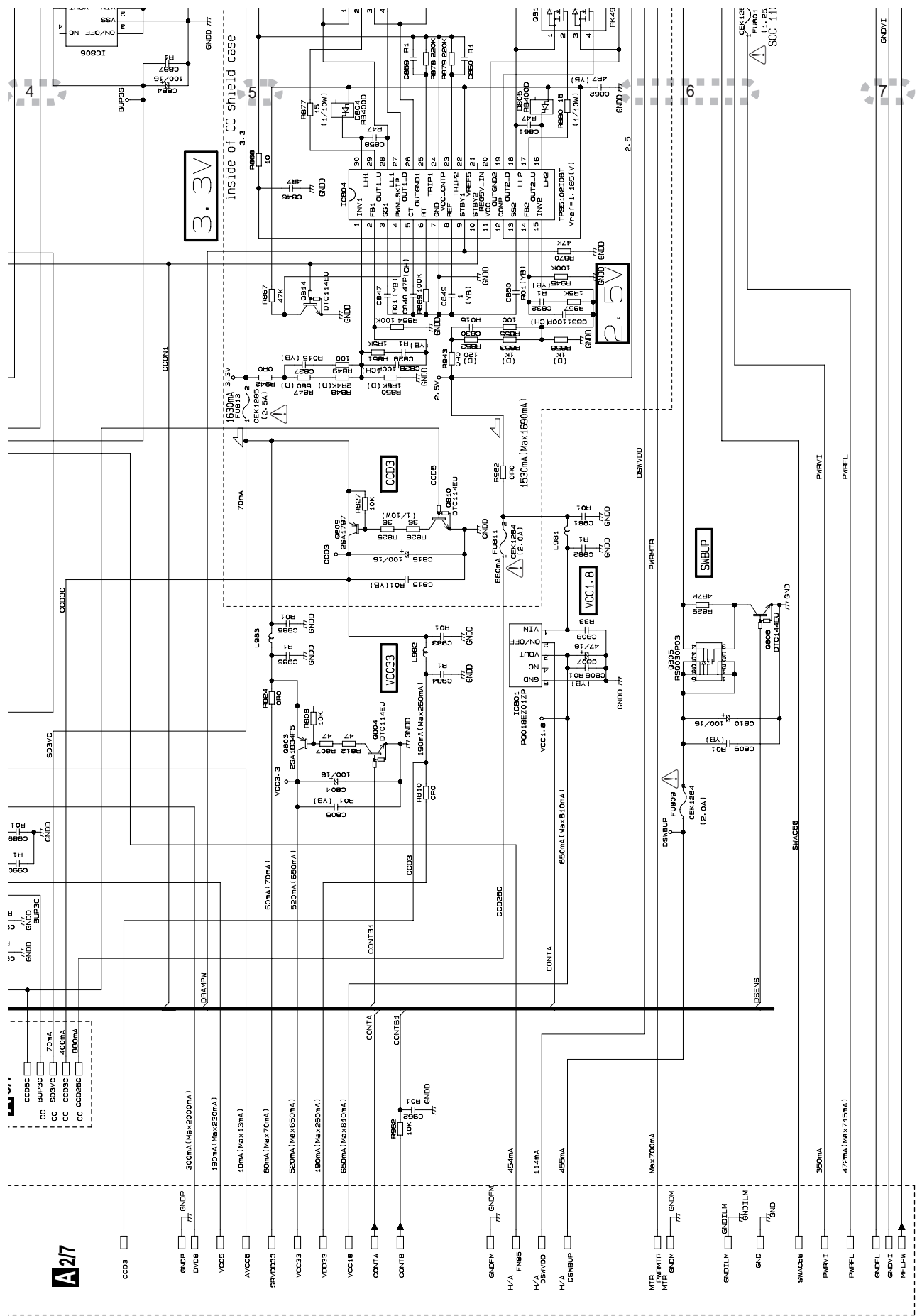
A-b 1/7

A-a	A-b

A-a 1/7



A2/7



A

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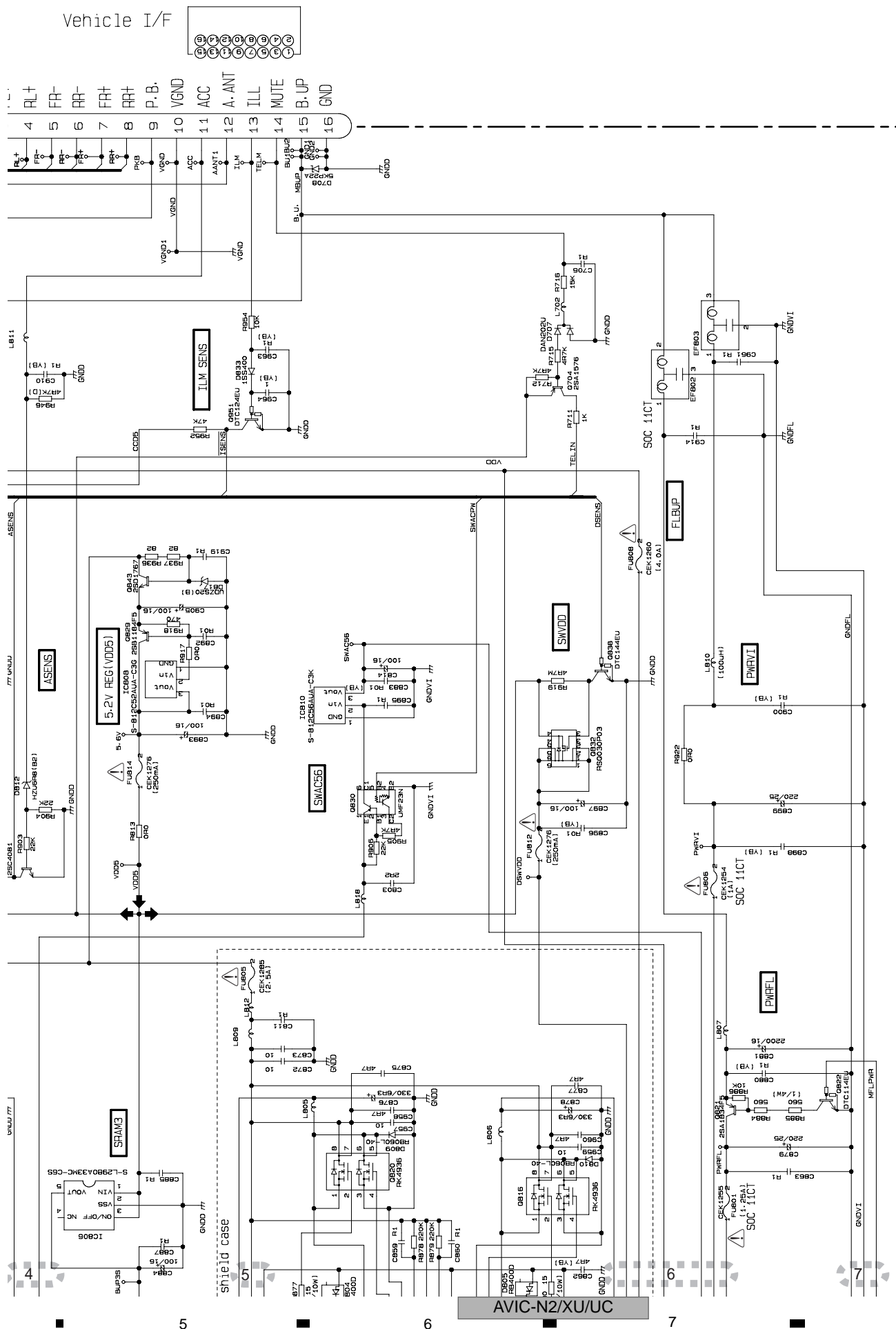
339

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342

Vehicle I/F



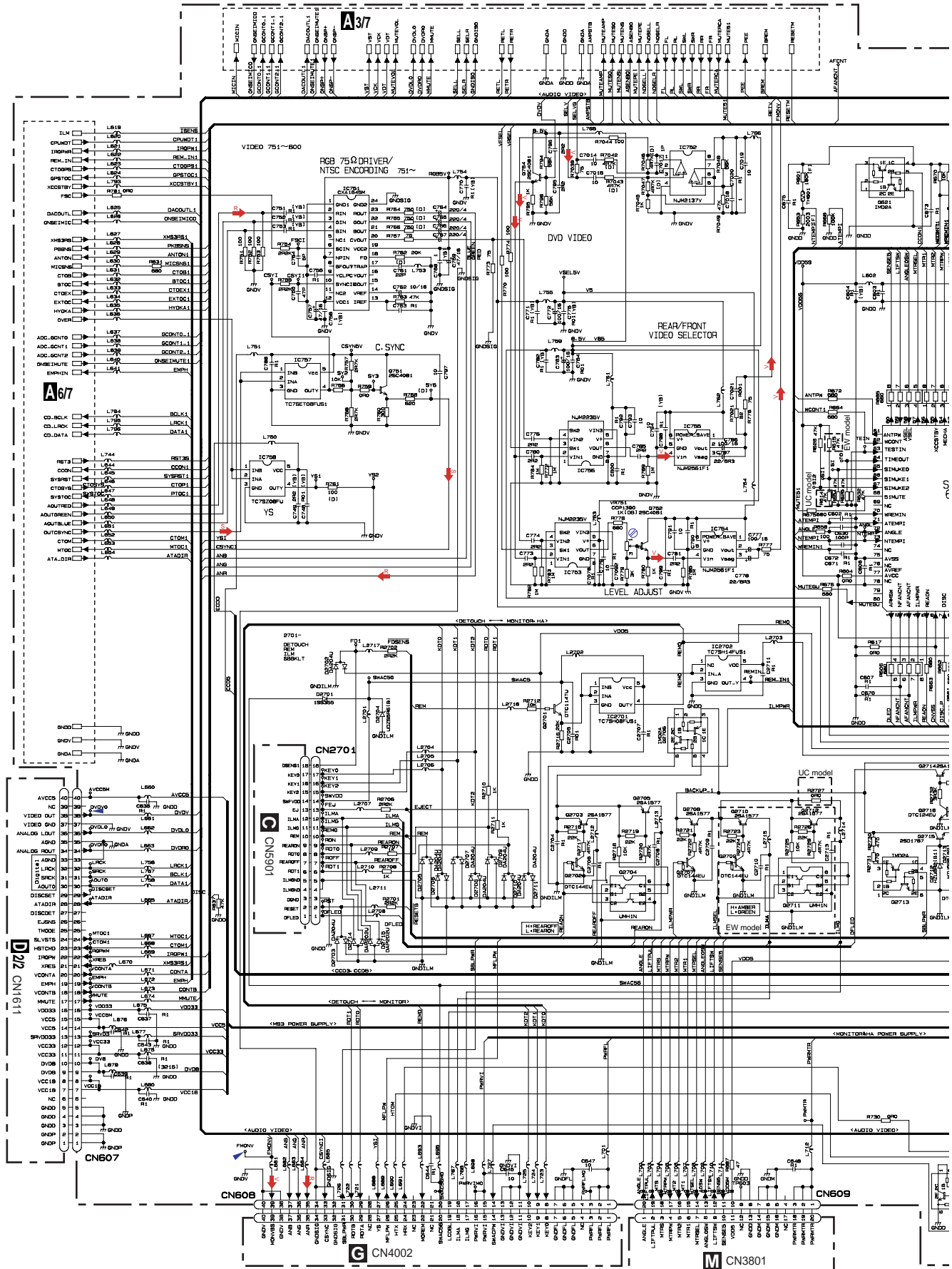
AVIC-N2/XU/UC

A-b 1/7

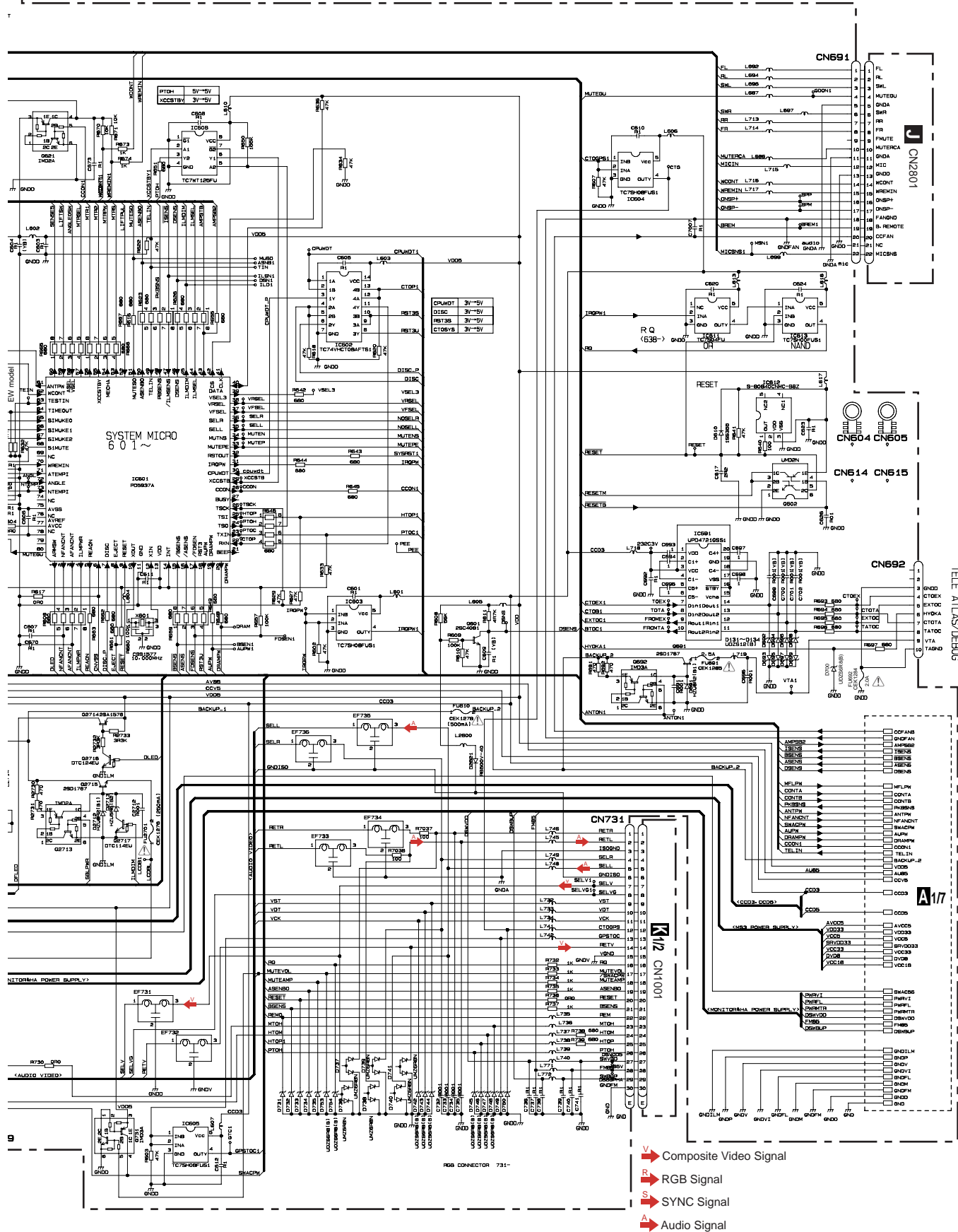
47

3.4 CC UNIT (SYSCOM, VIDEO, IF)(GUIDE PAGE)

A-a 2/7

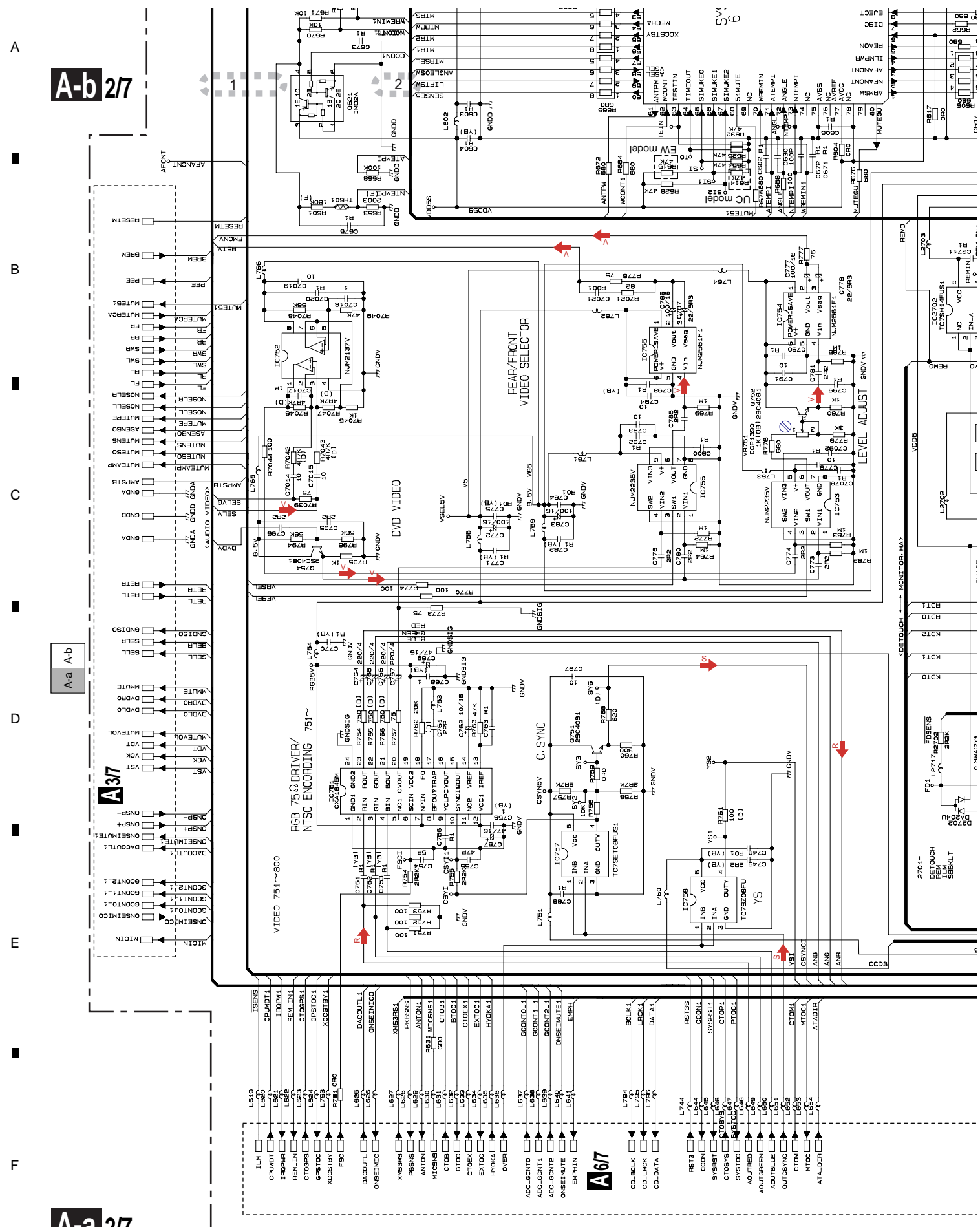


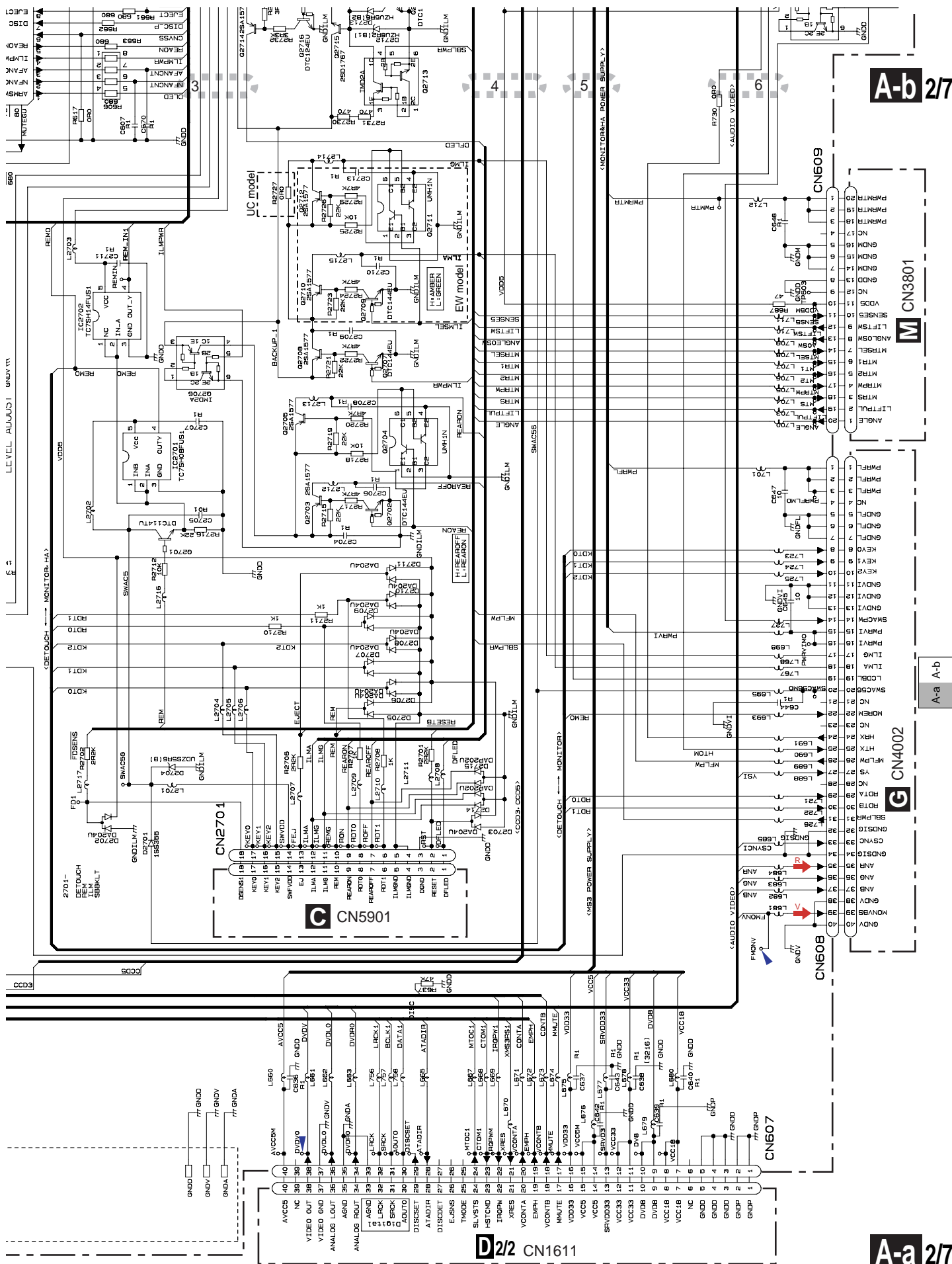
A2/7 CC UNIT (SYSCOM, VIDEO, IF)



A-a 2/7

AVIC-N2/XU/UC

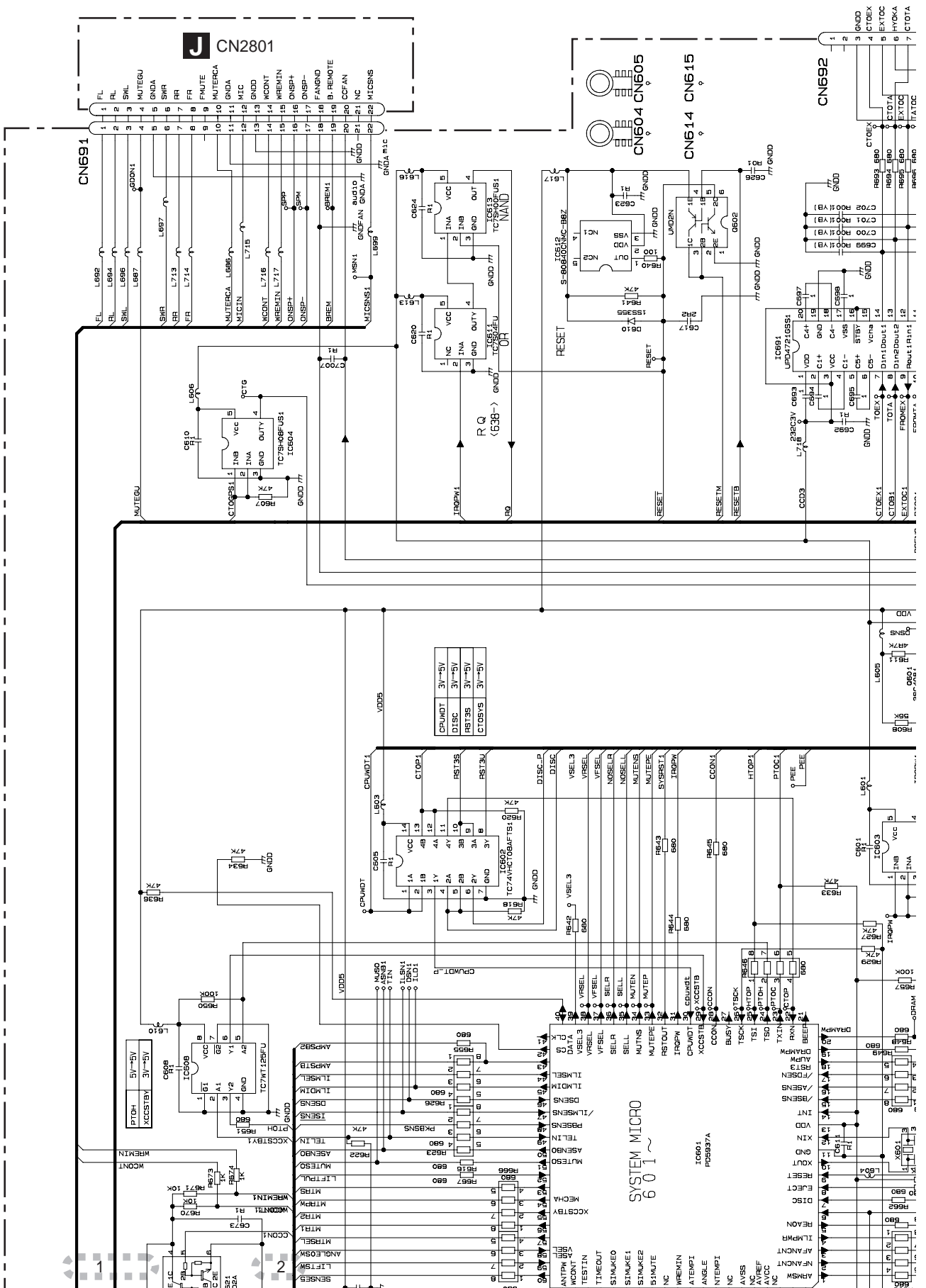




A B C D E F

A27 CC UNIT (SYSCOM, VIDEO, IF)

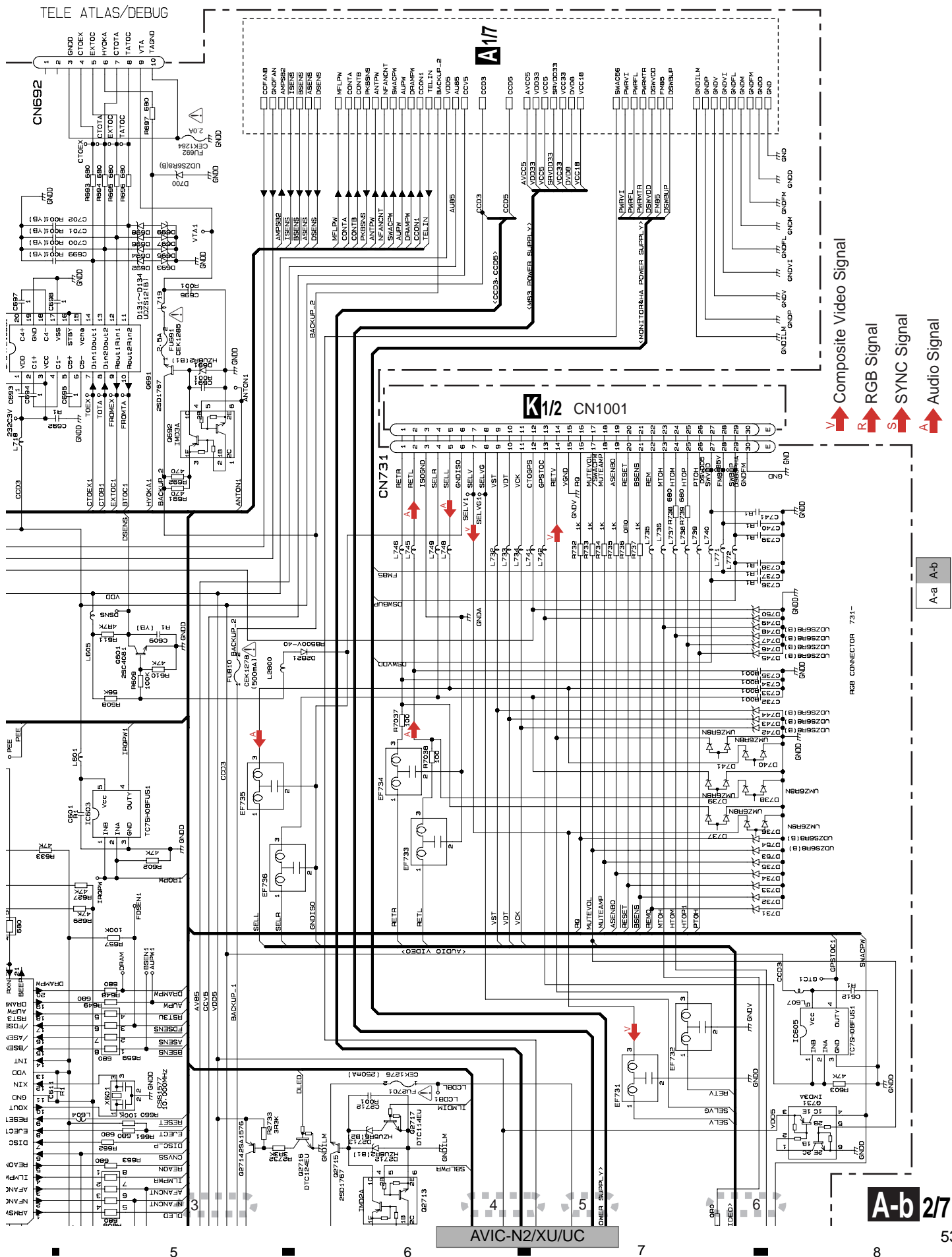
A-b 2/7



A B C D E F

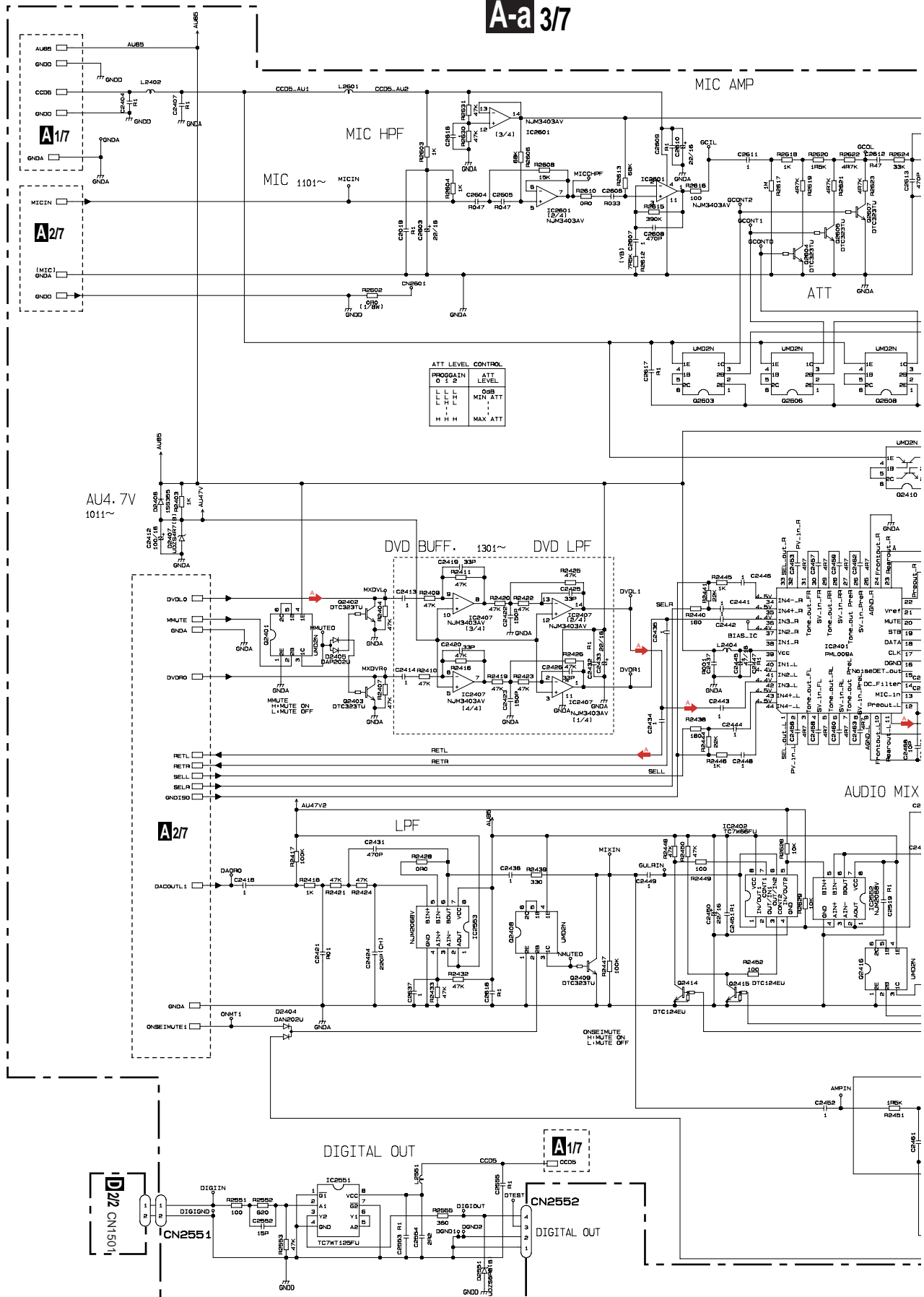
TELE ATLAS

AVIC-N2XU/UC



3.5 CC UNIT (AUDIO)(GUIDE PAGE)

A-a 3/7



A 3/7

A3/7 CC UNIT (AUDIO)



A-b 3/7

A-a A-b

A-a 3/7

AVIC-N2/XU/UC

MIC AMP

MIC HPF

MIC 1101~

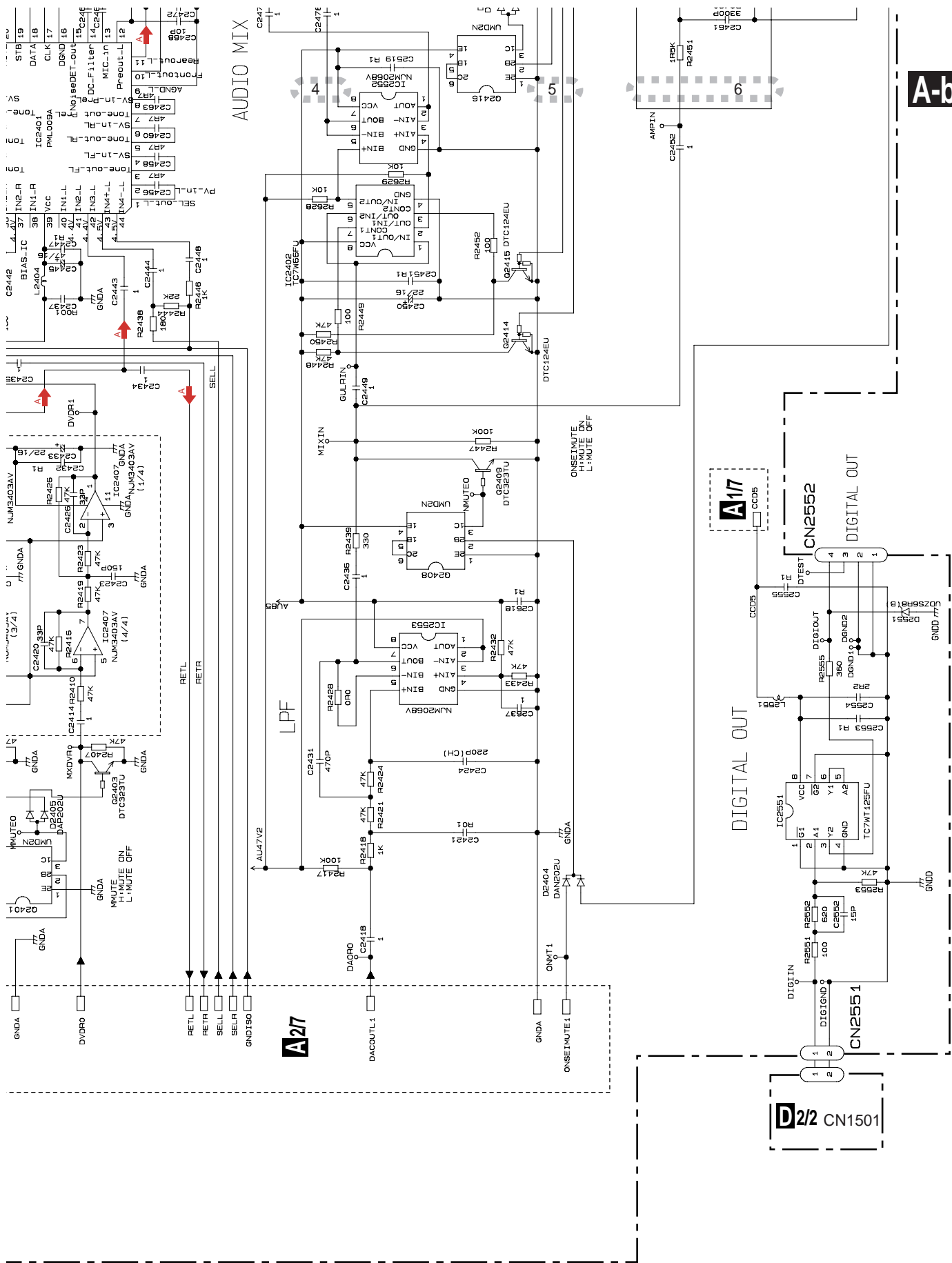
ATT

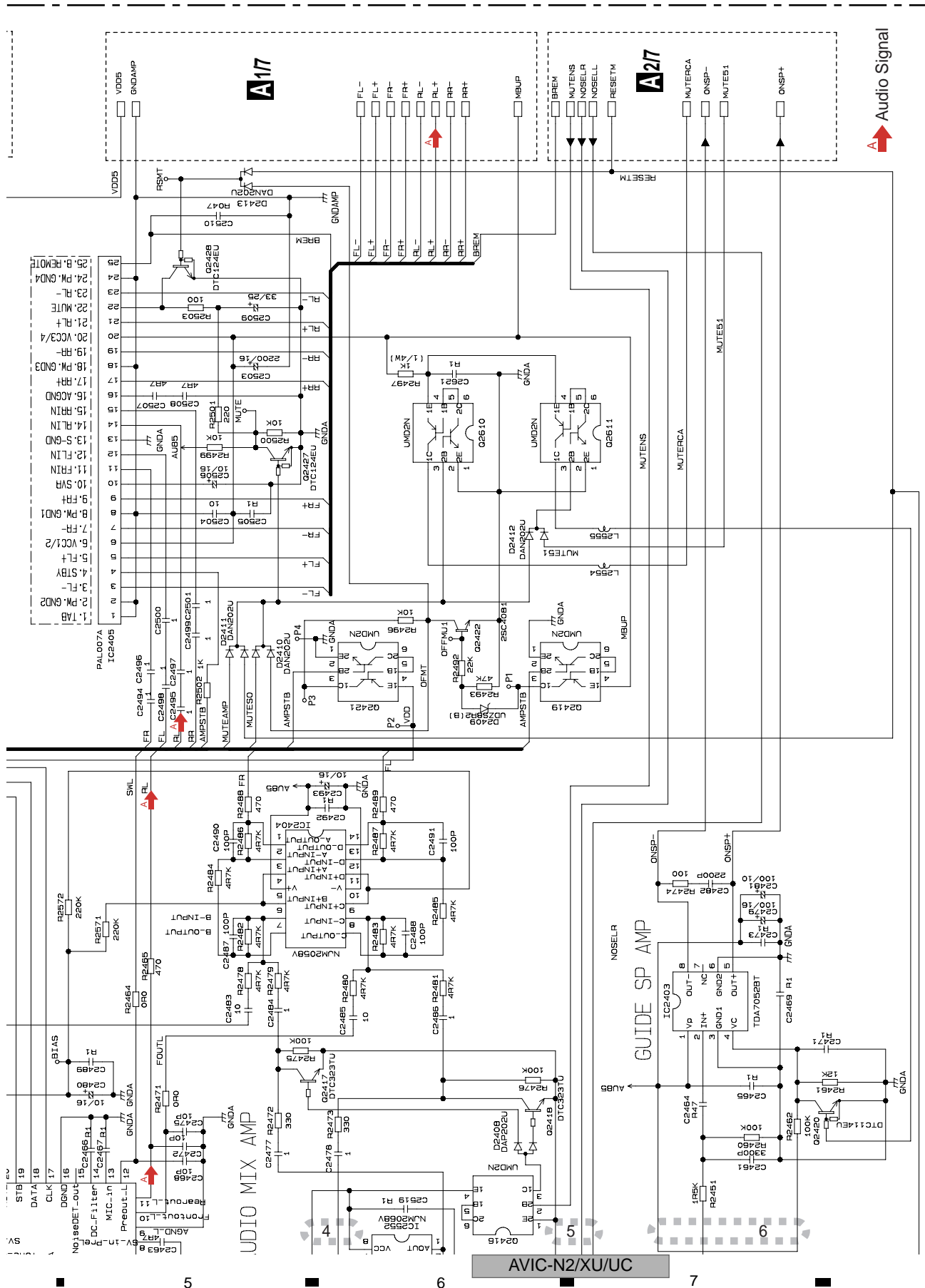
ATT LEVEL CONTROL			
PROGRAM	ATT LEVEL	ODB	
0	1	L	L
1	2	L	L
2	3	L	L
3	4	L	L
4	5	L	L
5	6	L	L
6	7	L	L
7	8	L	L
8	9	L	L
9	10	L	L
10	11	L	L
11	12	L	L
12	13	L	L
13	14	L	L
14	15	L	L
15	16	L	L
16	17	L	L
17	18	L	L
18	19	L	L
19	20	L	L
20	21	L	L
21	22	L	L
22	23	L	L
23	24	L	L
24	25	L	L
25	26	L	L
26	27	L	L
27	28	L	L
28	29	L	L
29	30	L	L
30	31	L	L
31	32	L	L
32	33	L	L
33	34	L	L
34	35	L	L
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37	38	L	L
38	39	L	L
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44	45	L	L
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49	50	L	L
50	51	L	L
51	52	L	L
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73	74	L	L
74	75	L	L
75	76	L	L
76	77	L	L
77	78	L	L
78	79	L	L
79	80	L	L
80	81	L	L
81	82	L	L
82	83	L	L
83	84	L	L
84	85	L	L
85	86	L	L
86	87	L	L
87	88	L	L
88	89	L	L
89	90	L	L
90	91	L	L
91	92	L	L
92	93	L	L
93	94	L	L
94	95	L	L
95	96	L	L
96	97	L	L
97	98	L	L
98	99	L	L
99	100	L	L

DVD BUFF. 1301~

DVD LFP

AU4. 7V
1011~





A-b 3/7

3.6 CC UNIT (CPU, ASIC, SDRAM)(GUIDE PAGE)

A

A-a 4/7

B

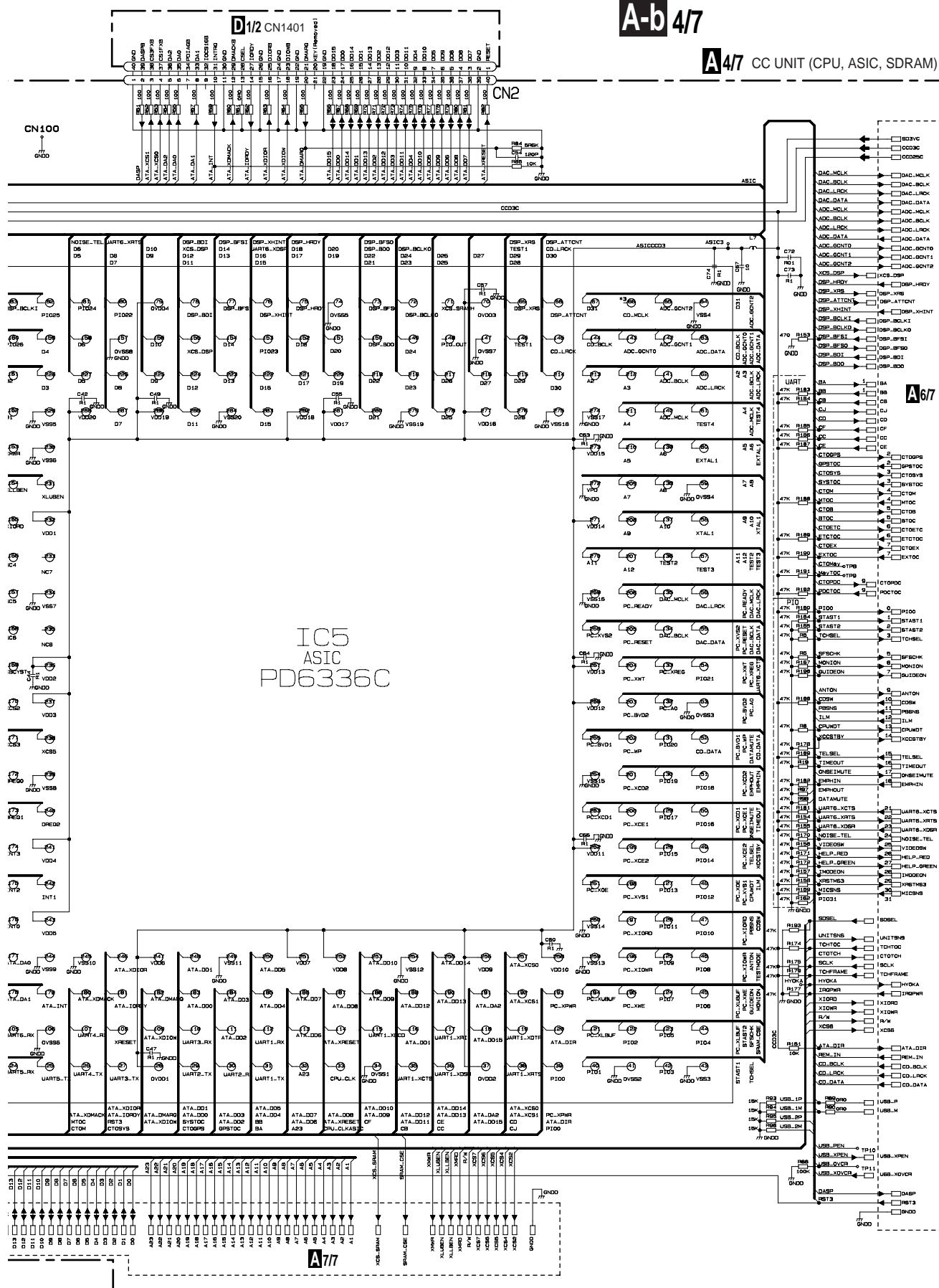
C

D

E

F

A 4/7

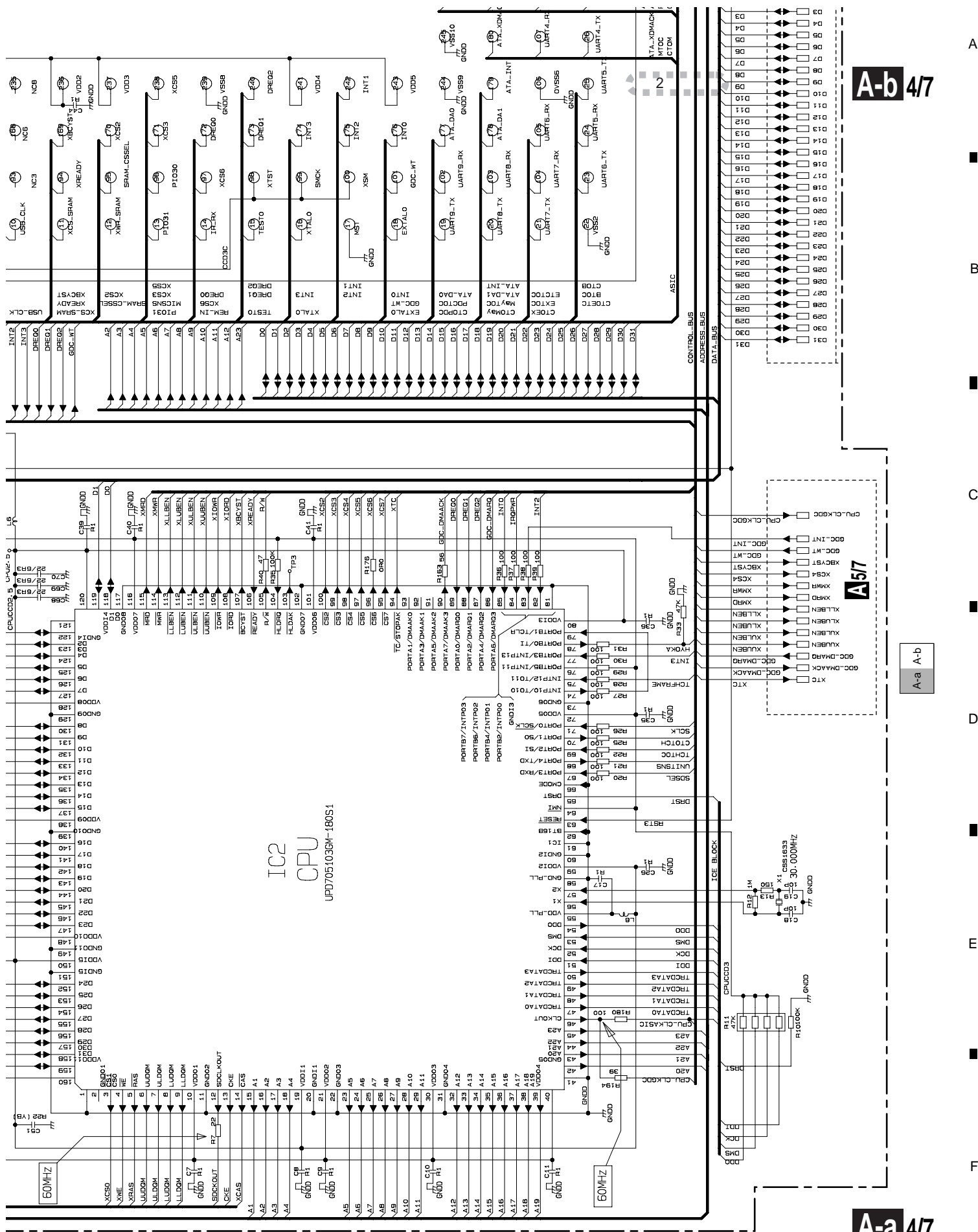


A 6/7

SDRAM

A-a 4/7

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A-b 4/7

A5/7

A-a A-b

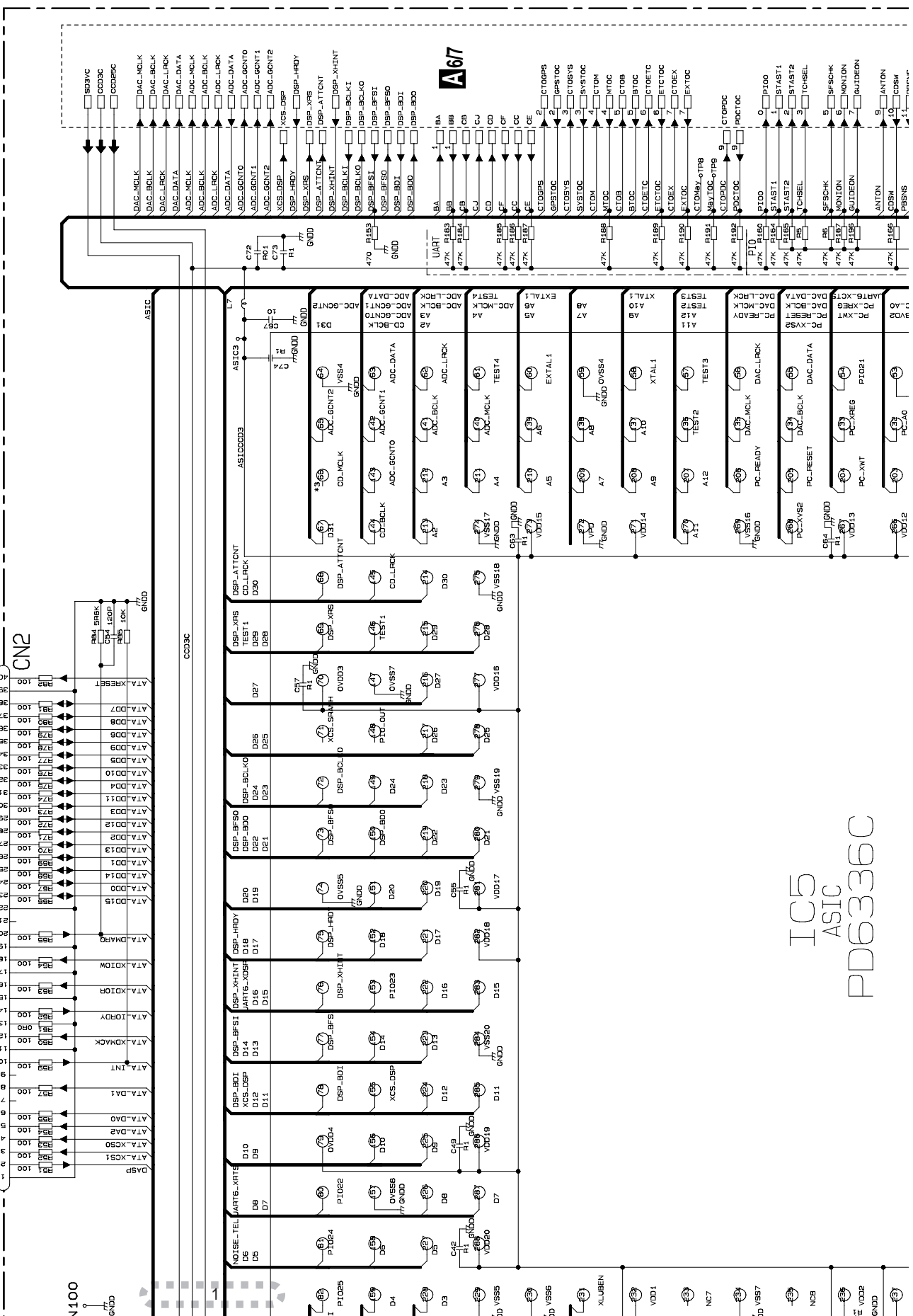
A-a 4/7

A B C D E F

A47 CC UNIT (CPU, ASIC, SDRAM)

D1/2 CN1401

A-b 4/7



IC5
ASIC
PD6336C

AVIC-N2/XU/UC

64

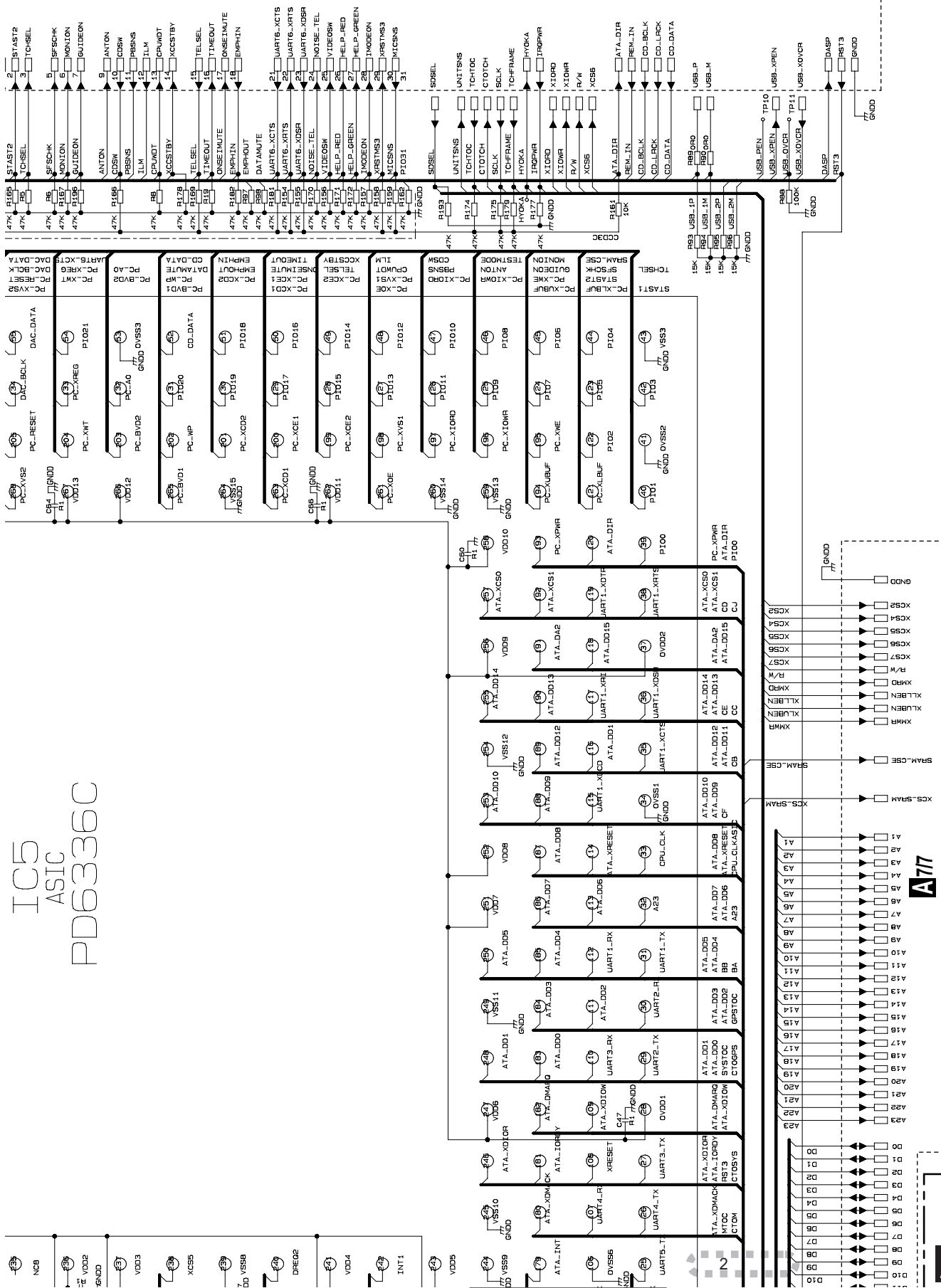
1

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4

IC5 ASIC PD6336C



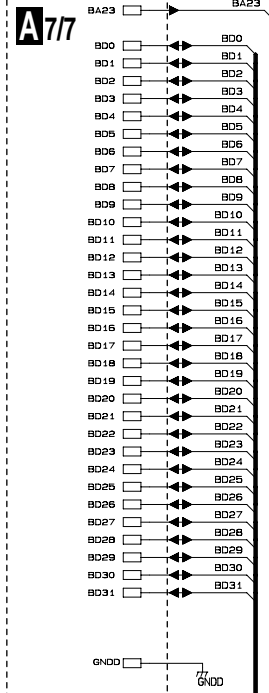
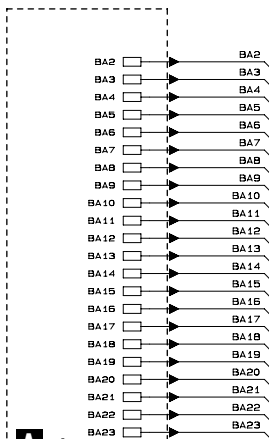
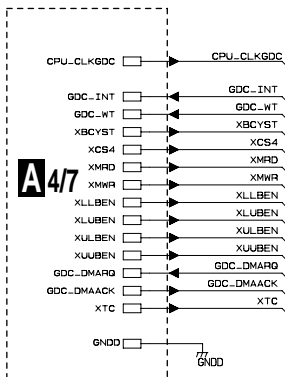
AVIC-N2/XU/UC

A-b 4/7

A-a A-b

3.7 CC UNIT (GRAPHIC)

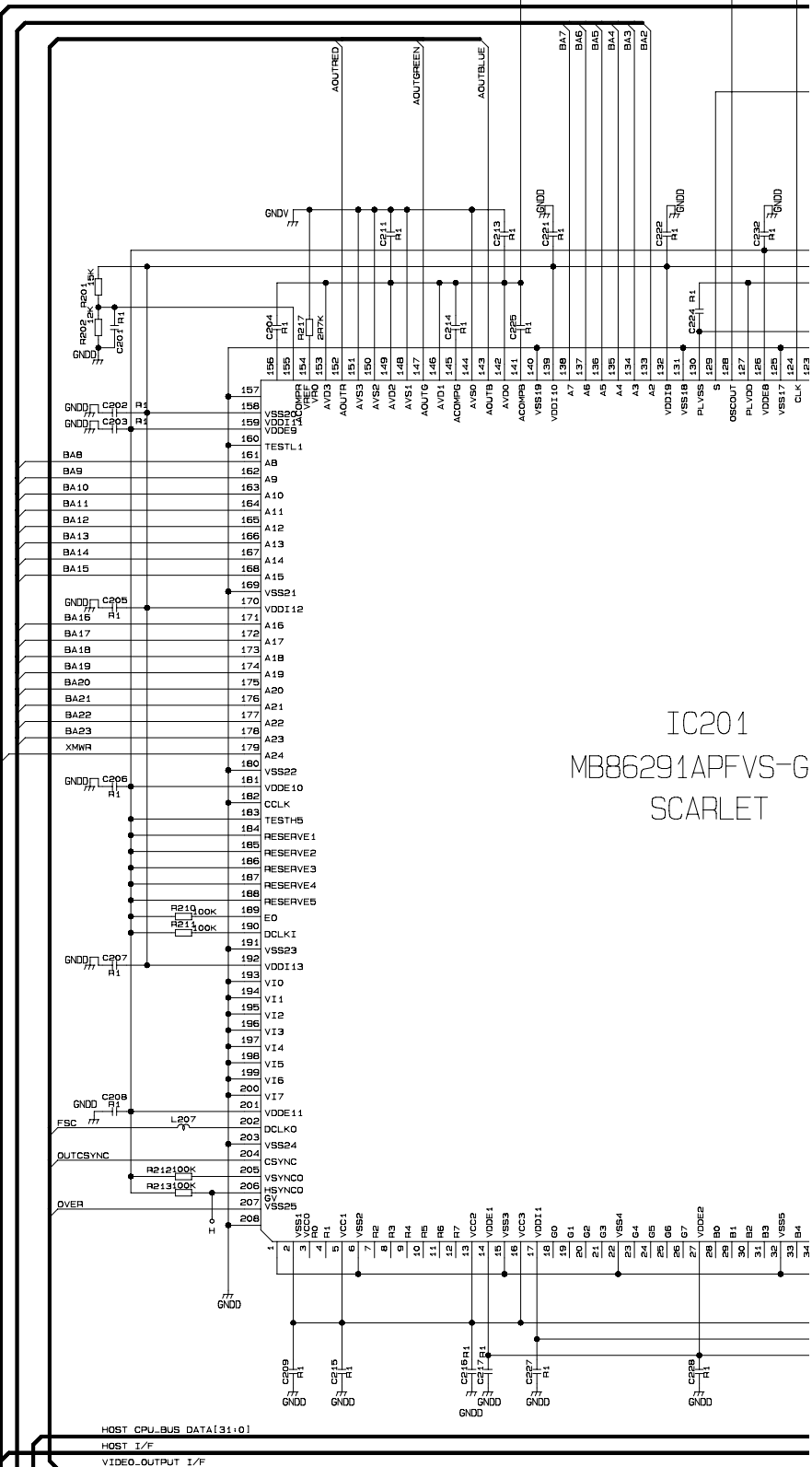
A5/7 CC UNIT (GRAPHIC)



HOST I/F

HOST CPU_BUS ADDRESS[24:2]

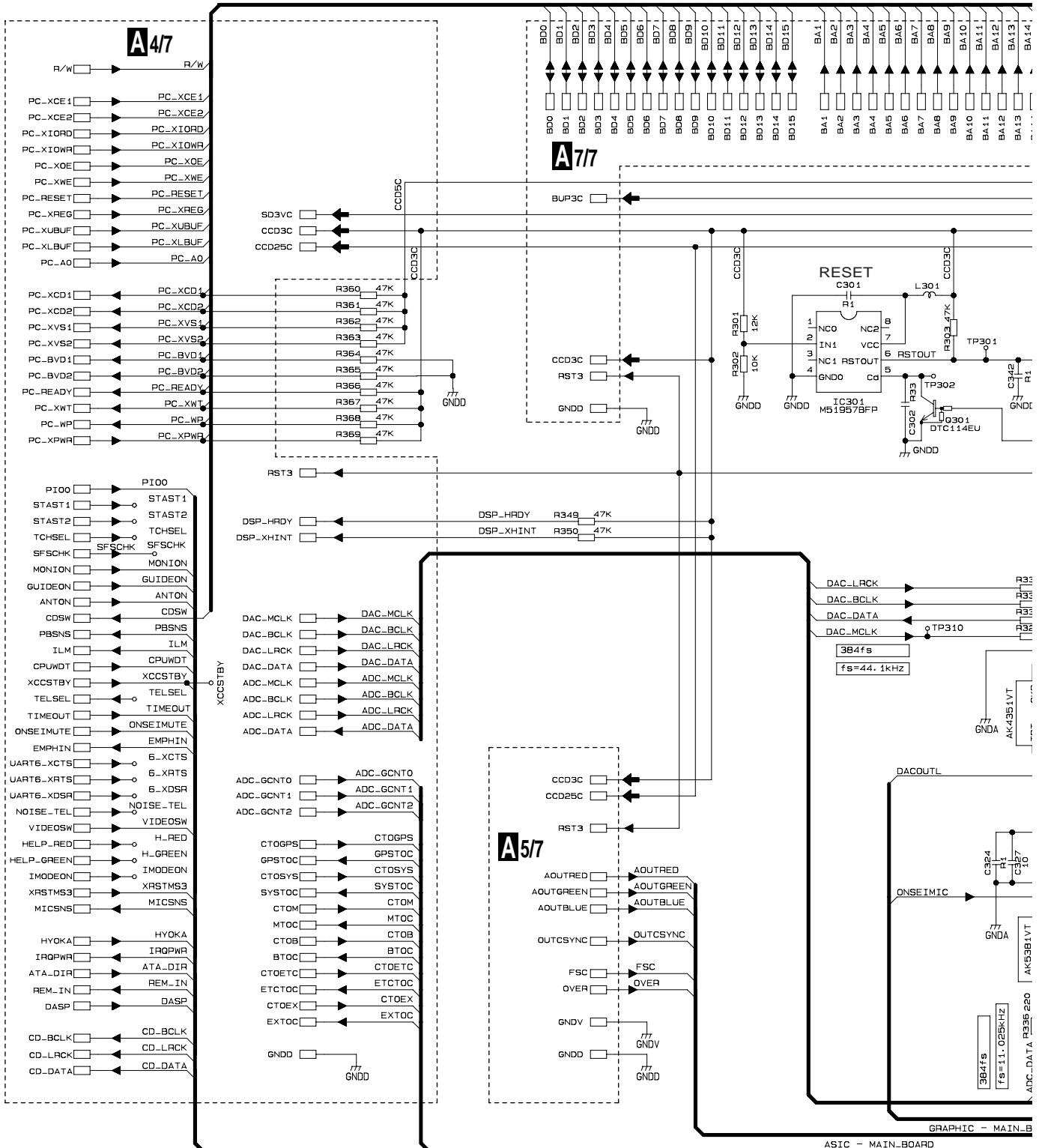
HOST CPU_BUS DATA[31:0]





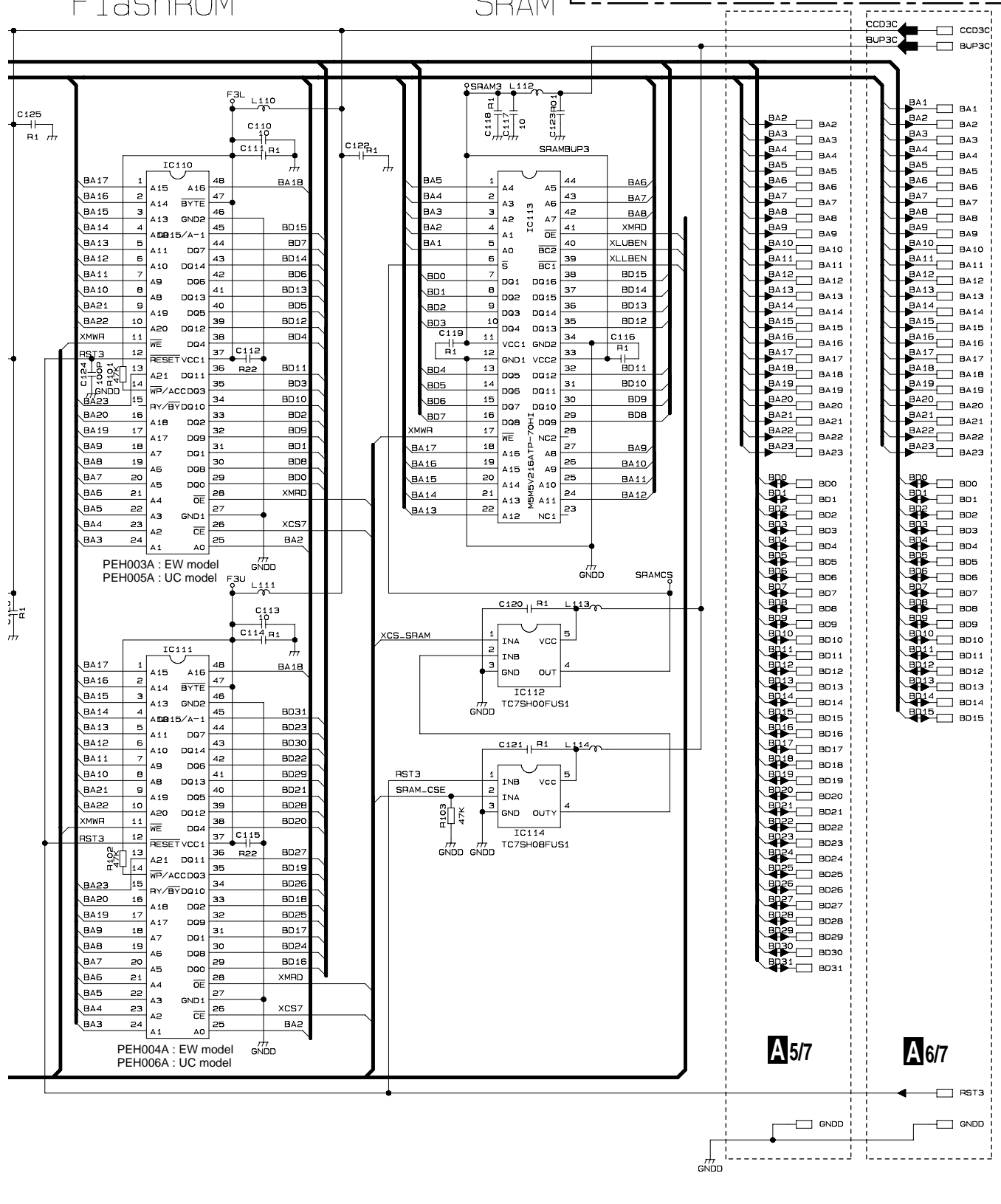
3.8 CC UNIT (MAIN, CC CORE I/F)

A6/7 CC UNIT (MAIN, CC CORE I/F)



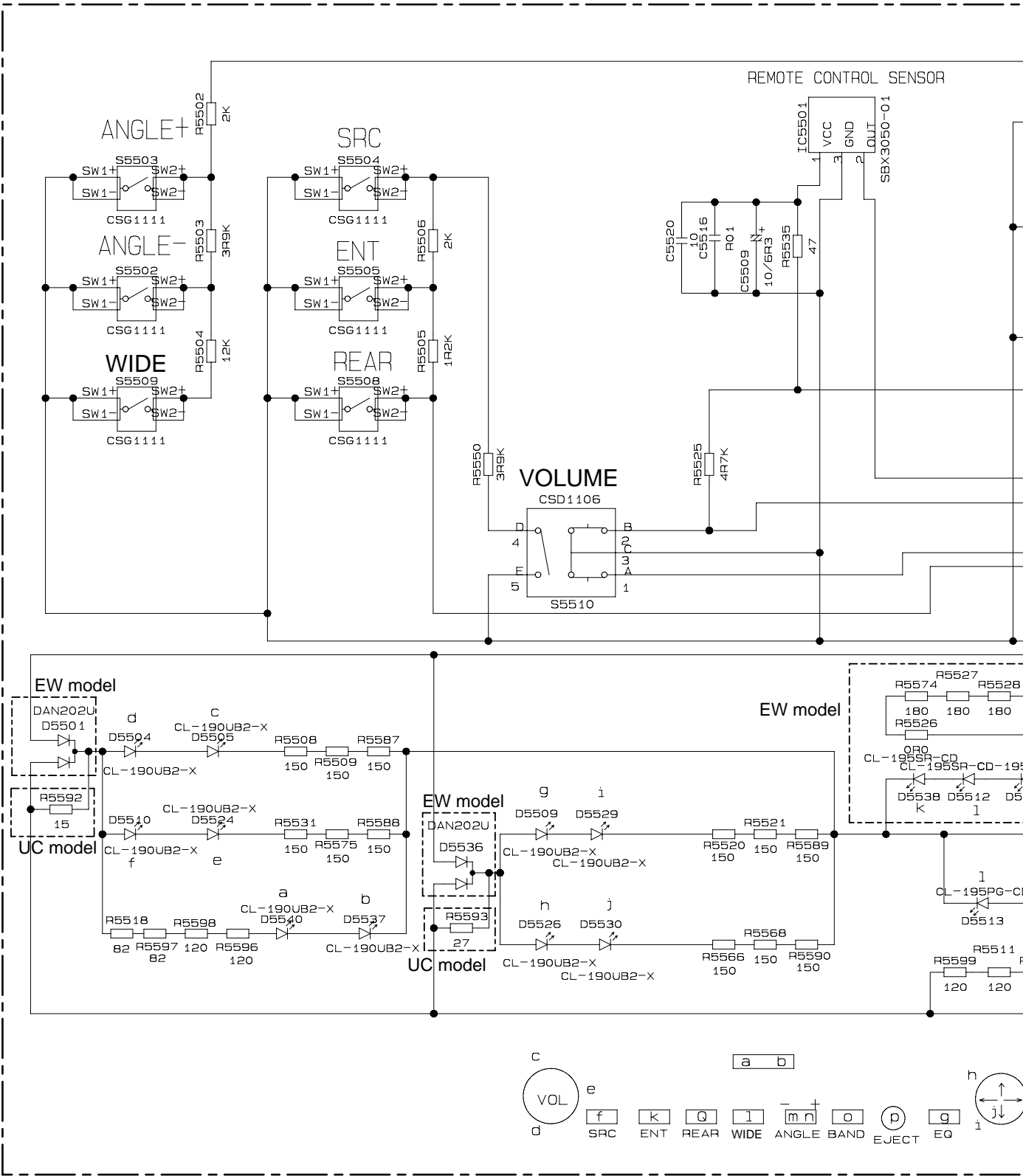
FlashROM

SRAM

A77 CC UNIT (ROM, SRAM, BUS-BUFFER)

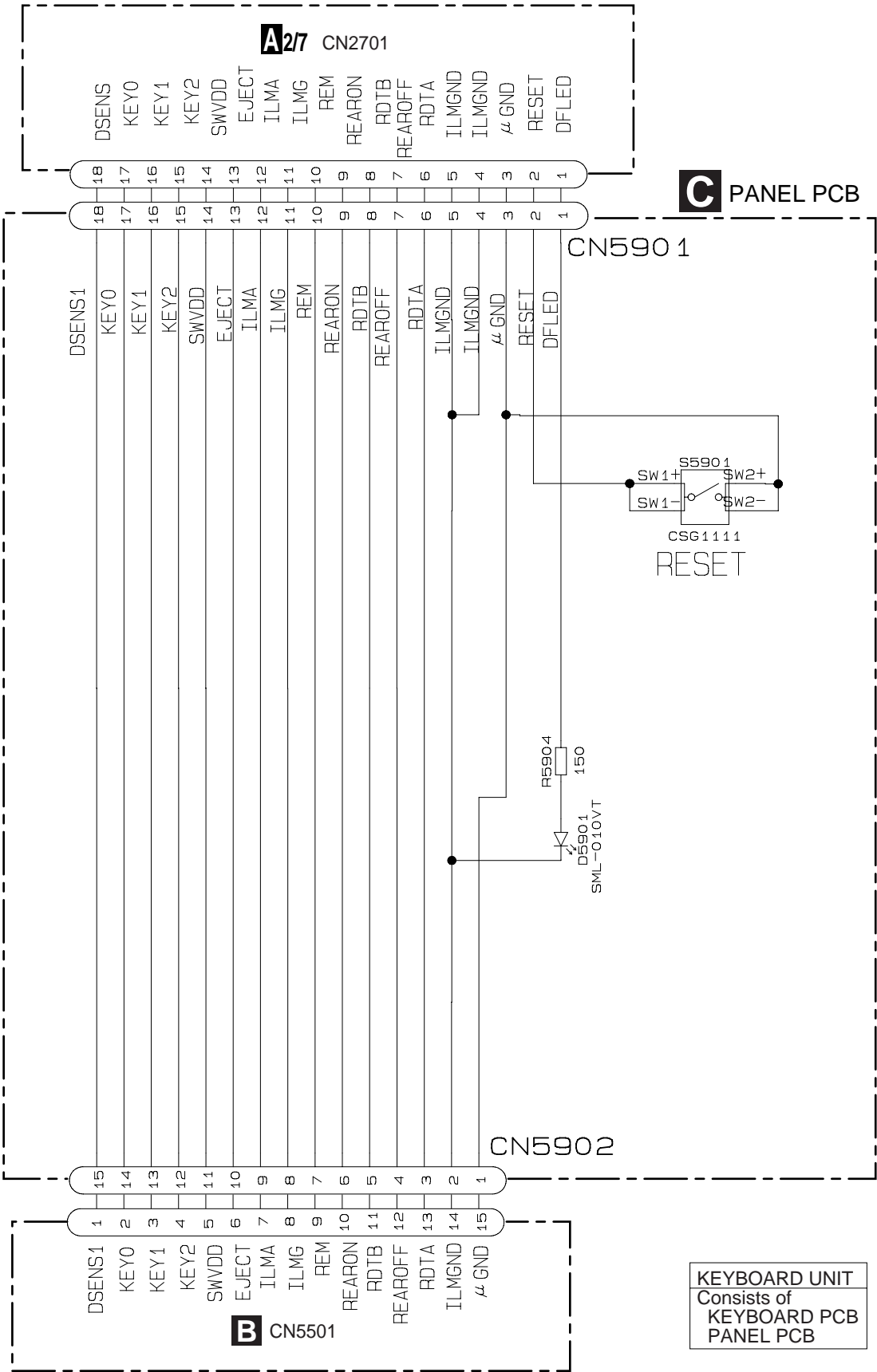
3.10 KEYBOARD PCB

A
B
C
D
E
F



B

3.11 PANEL PCB



■

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■

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■

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8

■

A

B

C

D

E

F

■

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■

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AVIC-N2/XU/UC

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A



C

D

E

F

A

D-b 1/2

B

C

D

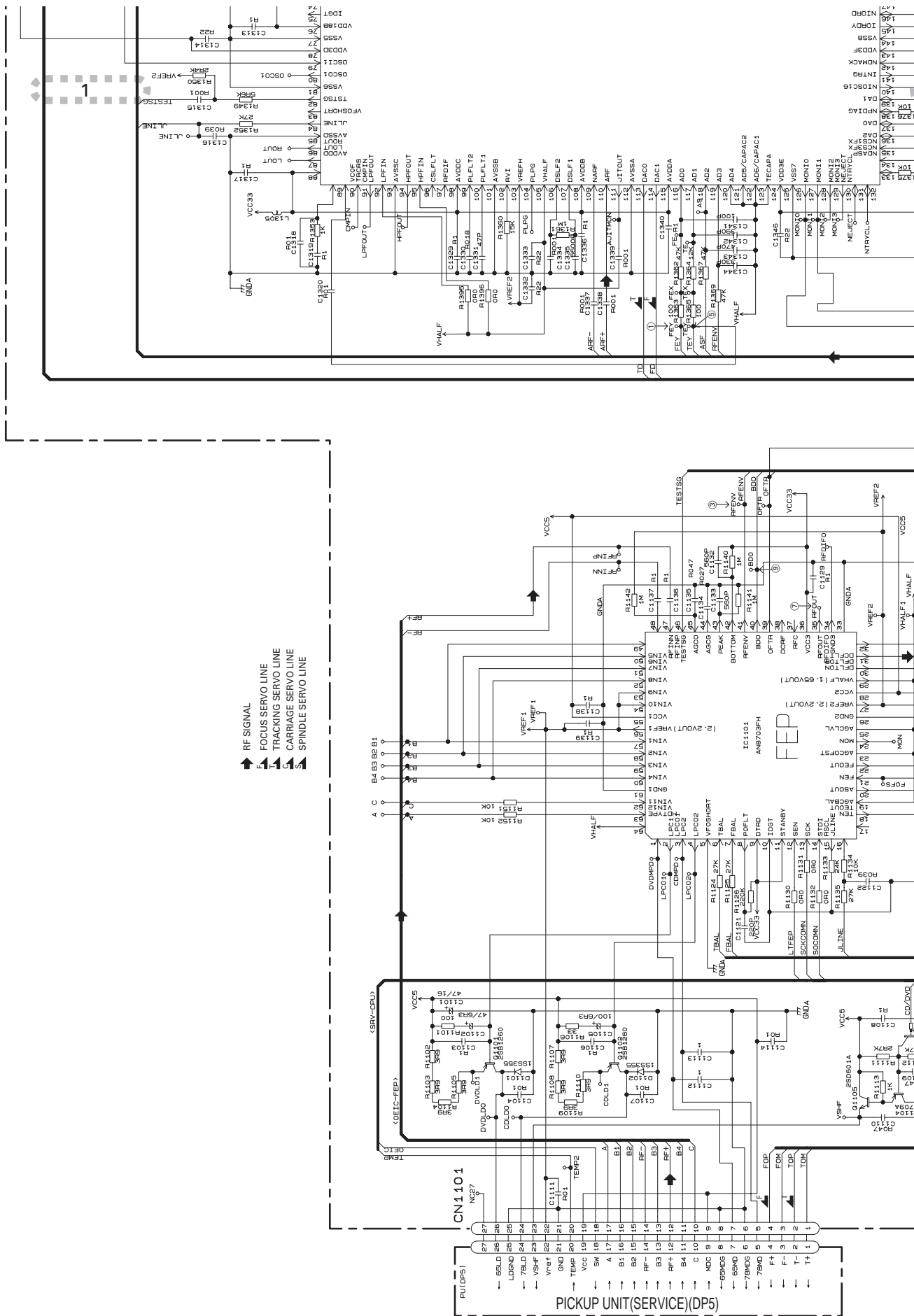
E

F

D-a 1/2

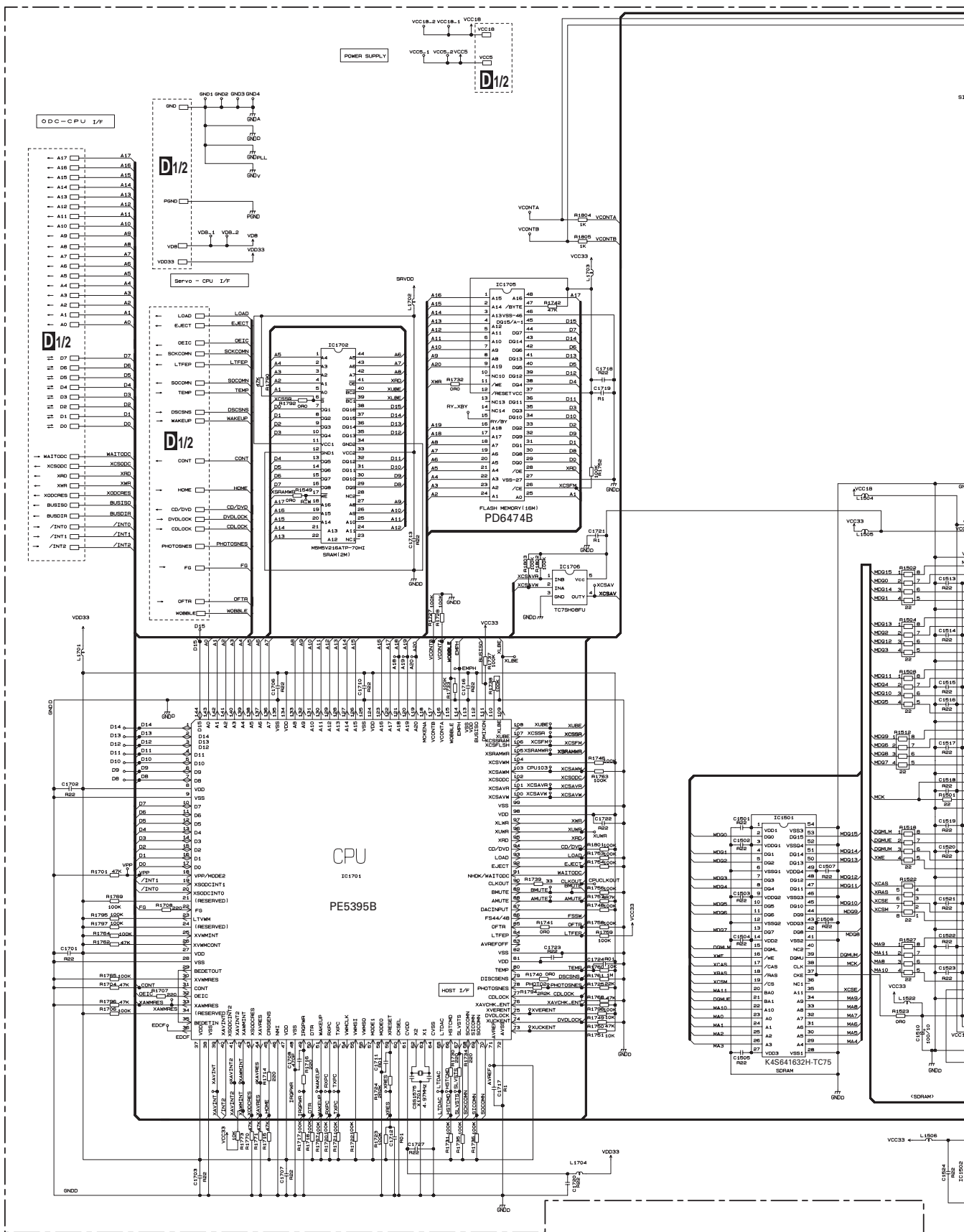
78

AVIC-N2/XU/UC



3.13 DVD CORE UNIT(MS3)(CPU)(GUIDE PAGE)

D-a 2/2



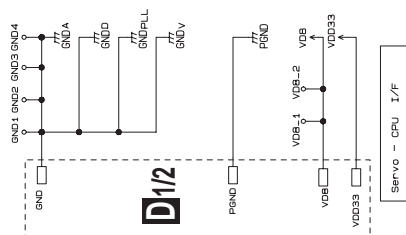
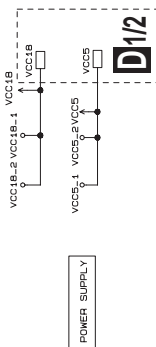
D2/2 DVD CORE UNIT(MS3)(CPU)



D-b 2/2



D-a D-b



ODC-CPU I/F

A17 A16 A15 A14 A13 A12 A11 A10 A9 A8 A7 A6 A5 A4 A3 A2 A1 A0

D7 D6 D5 D4 D3 D2 D1 D0

WAITOC XSDOC XRD XMR XDCRES BUSISO BUSDIR /INT0 /INT1 /INT2

KALTOOC XSDOC XRD XMR XDCRES BUSISO BUSDIR /INT0 /INT1 /INT2

KALTOOC XSDOC XRD XMR XDCRES BUSISO BUSDIR /INT0 /INT1 /INT2

KALTOOC XSDOC XRD XMR XDCRES BUSISO BUSDIR /INT0 /INT1 /INT2

KALTOOC XSDOC XRD XMR XDCRES BUSISO BUSDIR /INT0 /INT1 /INT2

KALTOOC XSDOC XRD XMR XDCRES BUSISO BUSDIR /INT0 /INT1 /INT2

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KALTOOC XSDOC XRD XMR XDCRES BUSISO BUSDIR /INT0 /INT1 /INT2

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KALTOOC XSDOC XRD XMR XDCRES BUSISO BUSDIR /INT0 /INT1 /INT2

KALTOOC XSDOC XRD XMR XDCRES BUSISO BUSDIR /INT0 /INT1 /INT2

KALTOOC XSDOC XRD XMR XDCRES BUSISO BUSDIR /INT0 /INT1 /INT2

KALTOOC XSDOC XRD XMR XDCRES BUSISO BUSDIR /INT0 /INT1 /INT2

KALTOOC XSDOC XRD XMR XDCRES BUSISO BUSDIR /INT0 /INT1 /INT2

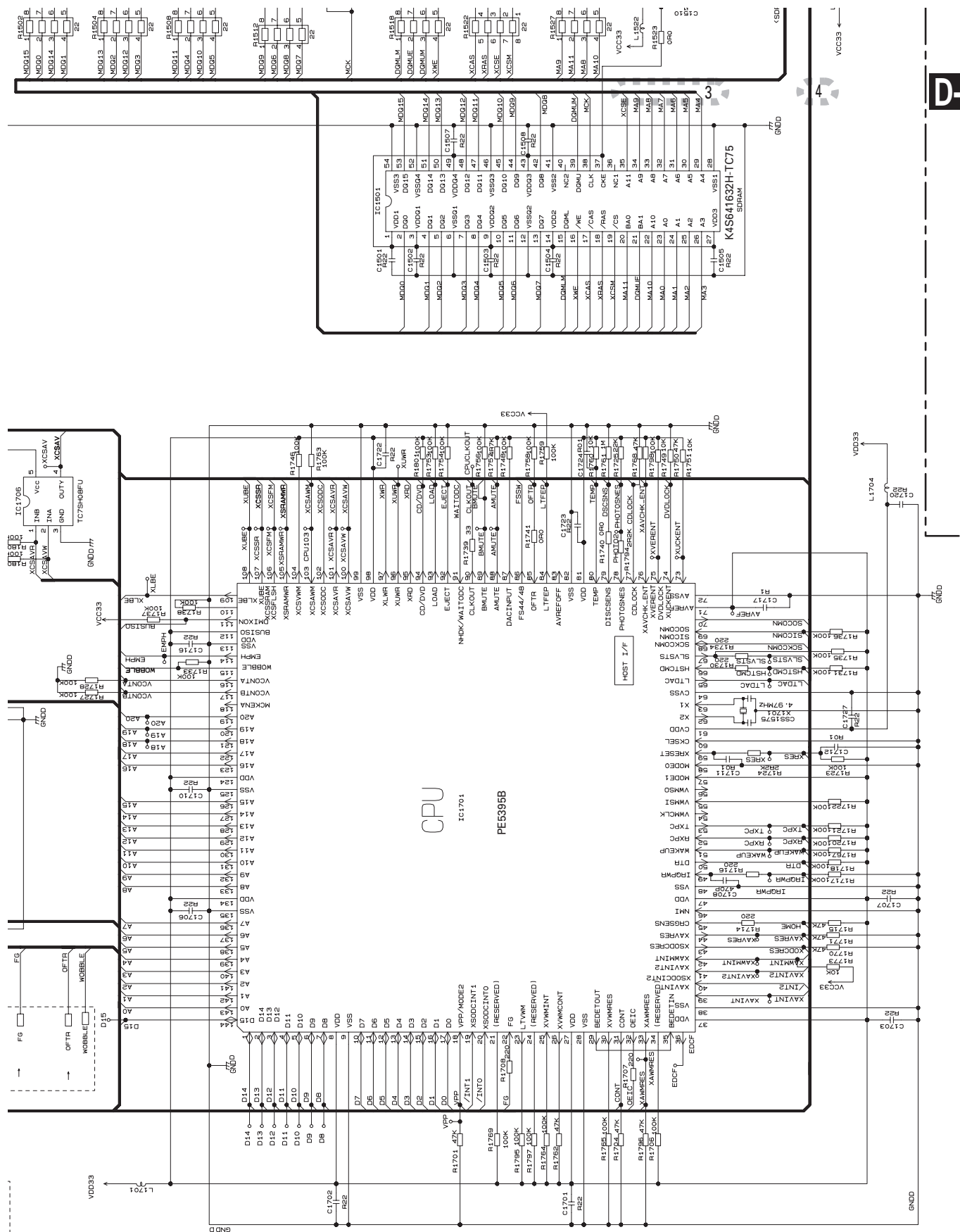
KALTOOC XSDOC XRD XMR XDCRES BUSISO BUSDIR /INT0 /INT1 /INT2

KALTOOC XSDOC XRD XMR XDCRES BUSISO BUSDIR /INT0 /INT1 /INT2

KALTOOC XSDOC XRD XMR XDCRES BUSISO BUSDIR /INT0 /INT1 /INT2

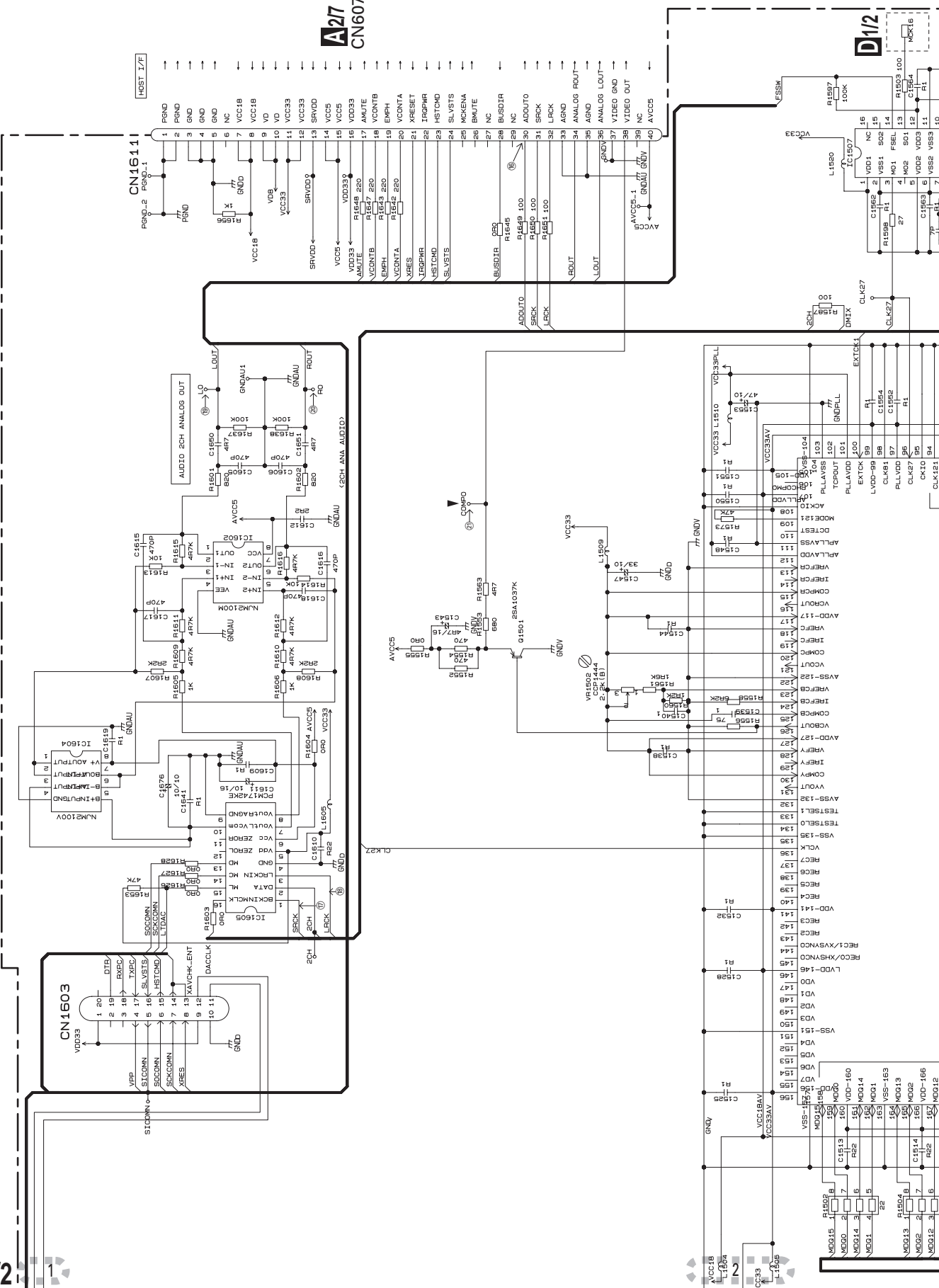
D-a 2/2

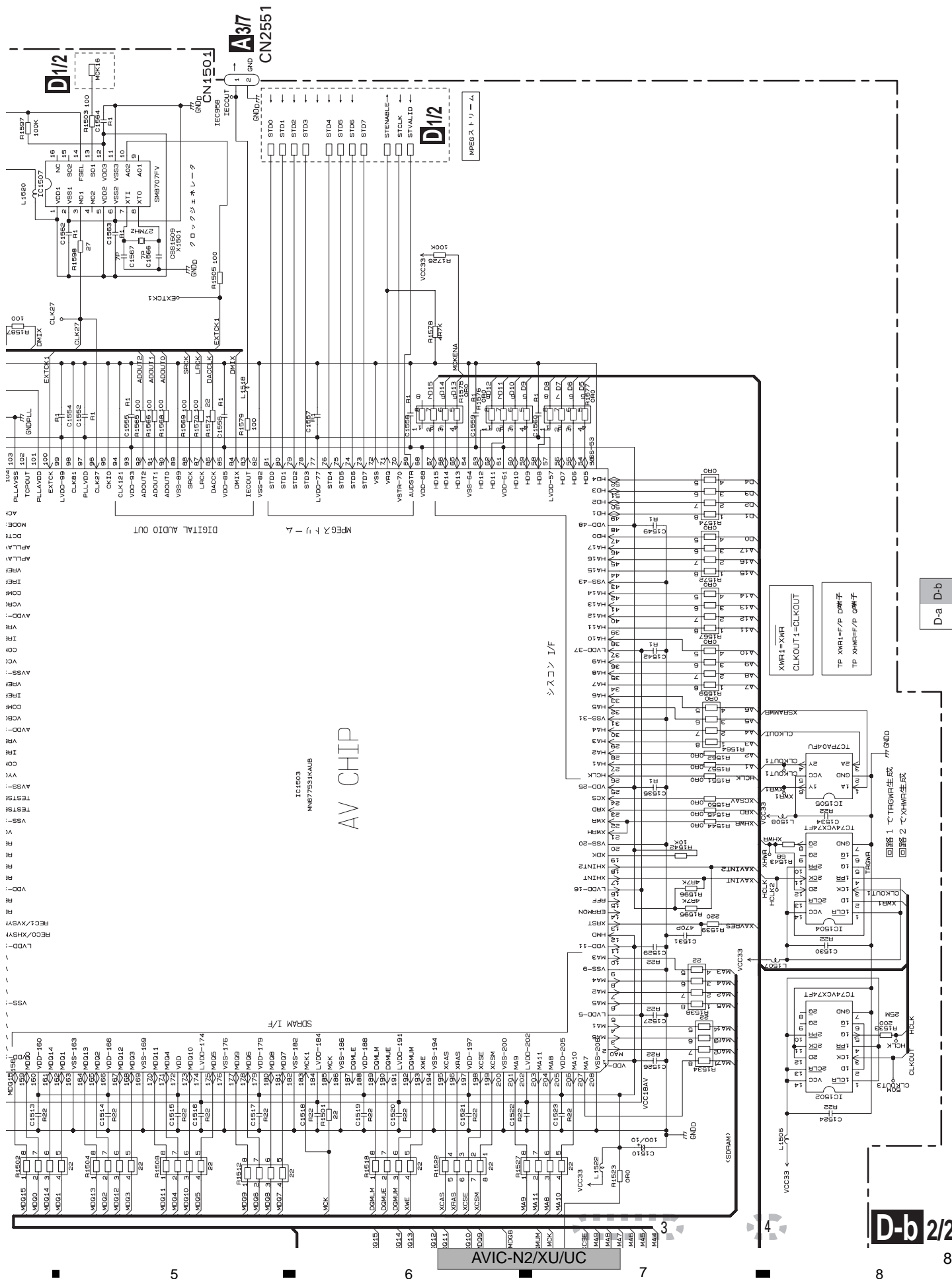
AVIC-N2/XU/UC



D-a

AVIC-N2/XU/UC





A B C D E F

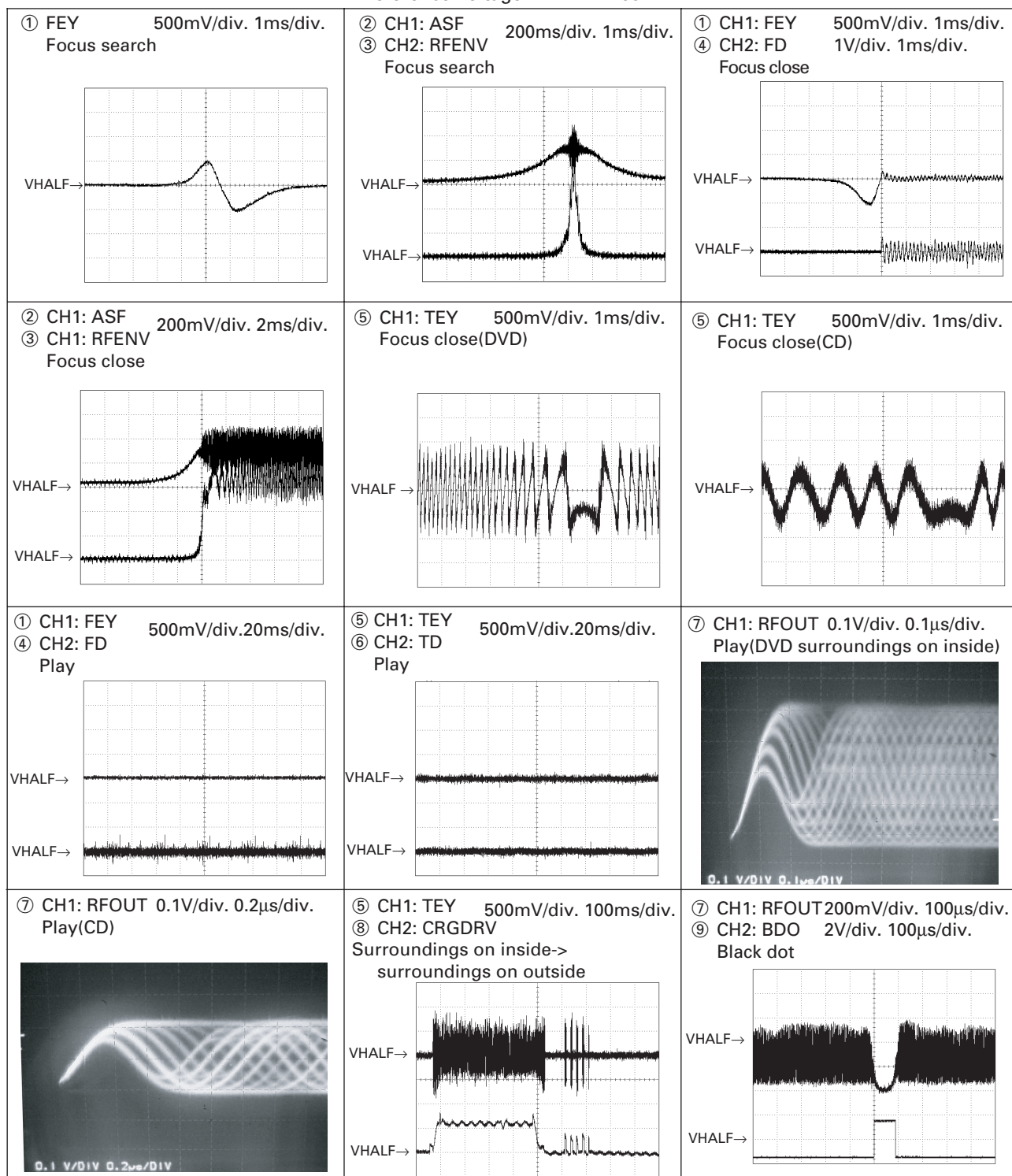
D-a D-b

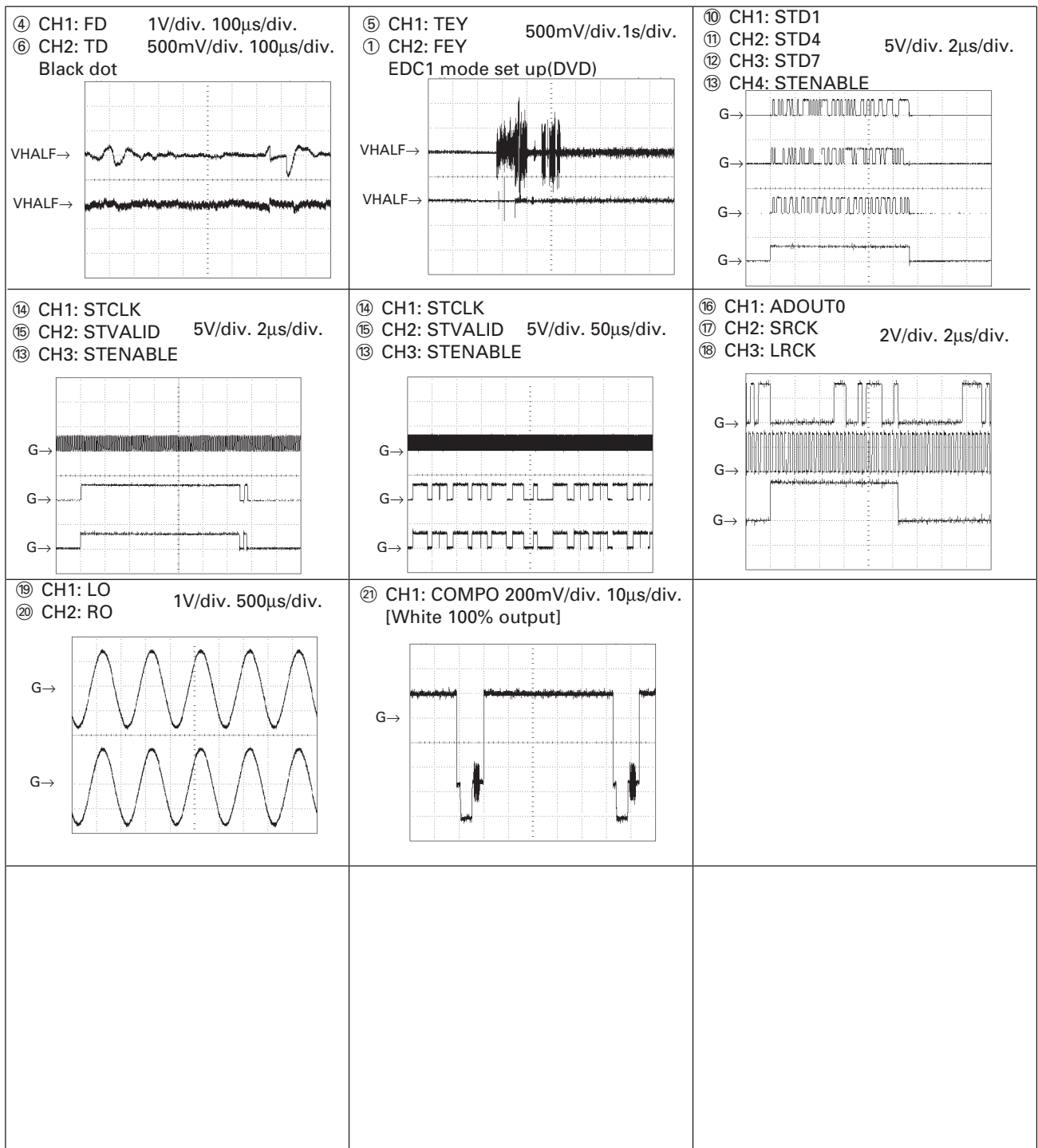
D-b 2/2

Waveforms

Note:1. The encircled number denote measuring pointes in the circuit diagram.

2. Reference voltage VHALF : 1.65V





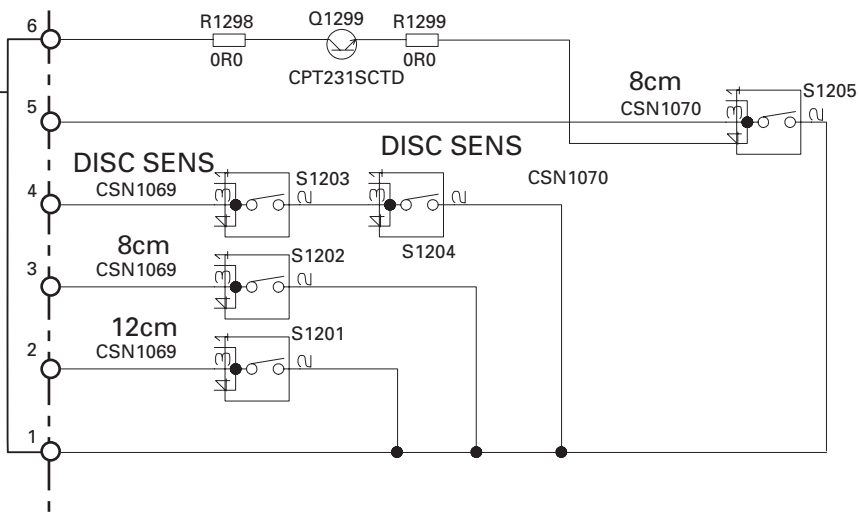
3.14 COMPOUND UNIT(A) AND COMPOUND UNIT(B)

A

E

COMPOUND UNIT(A)

D_{1/2}
CN1202



B

C

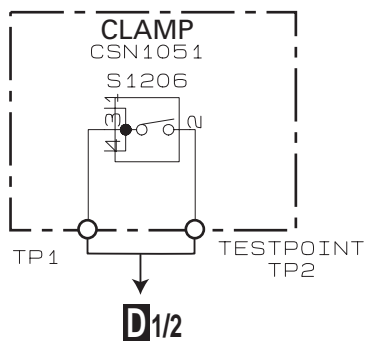
D

E

F

F

COMPOUND UNIT(B)

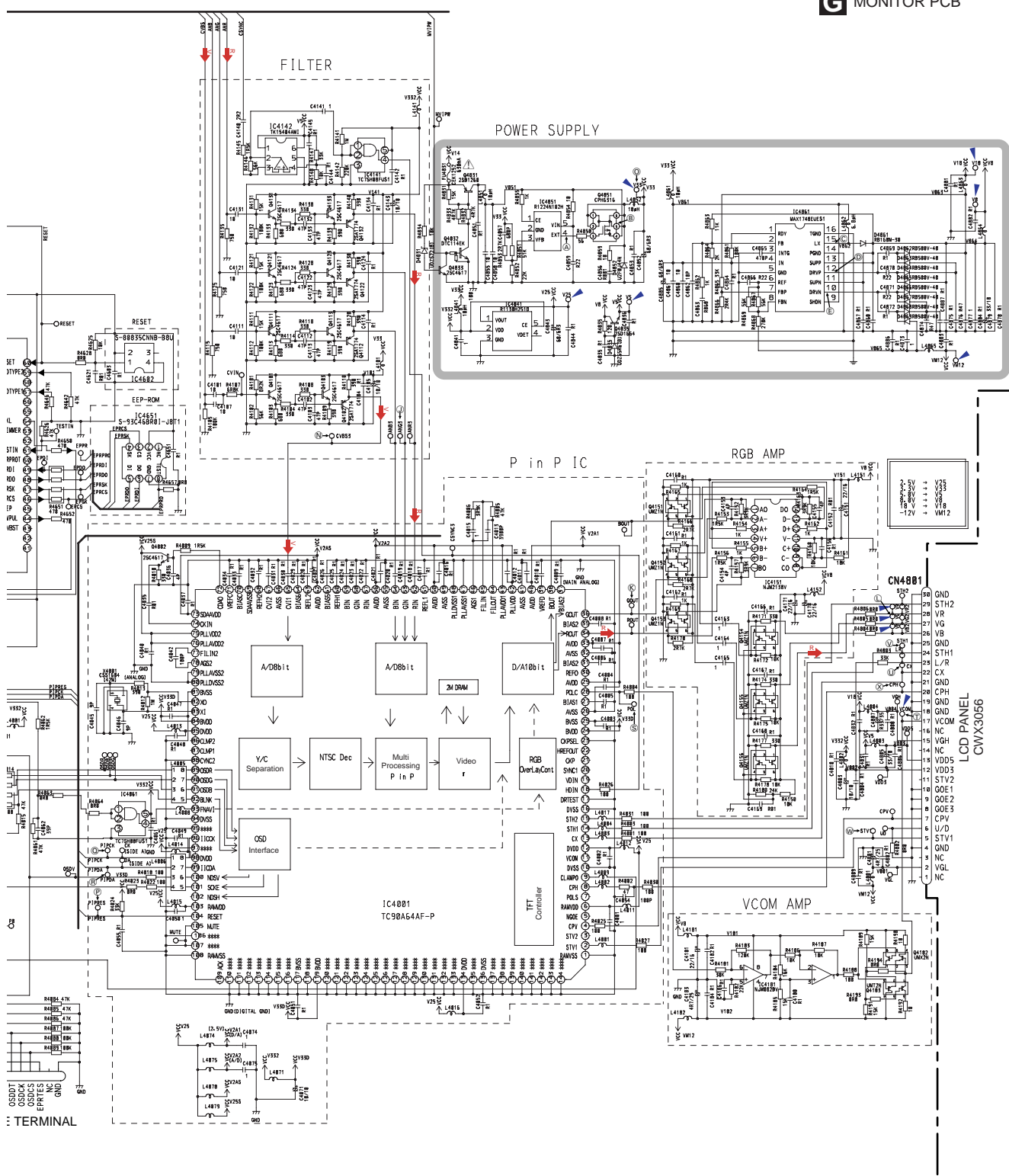
**E F**

■ 5 ■ 6 ■ 7 ■ 8



G-a





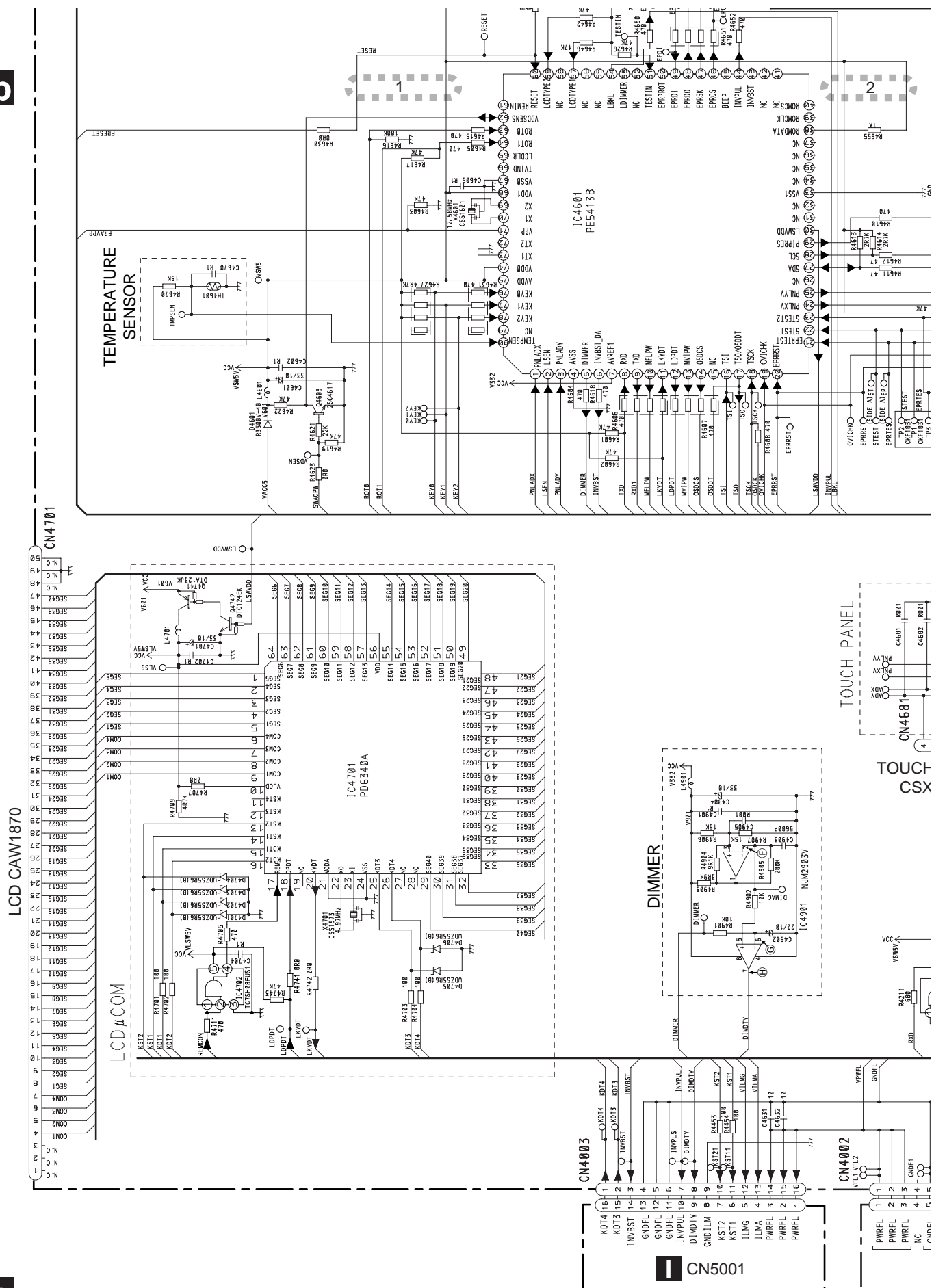
MONITOR UNIT
Consists of
MONITOR PCB
UPPER PCB
INVERTER PCB

➔ Composite Video Signal
➔ RGB Signal

G-b

G-a	G-b
-----	-----

G-a



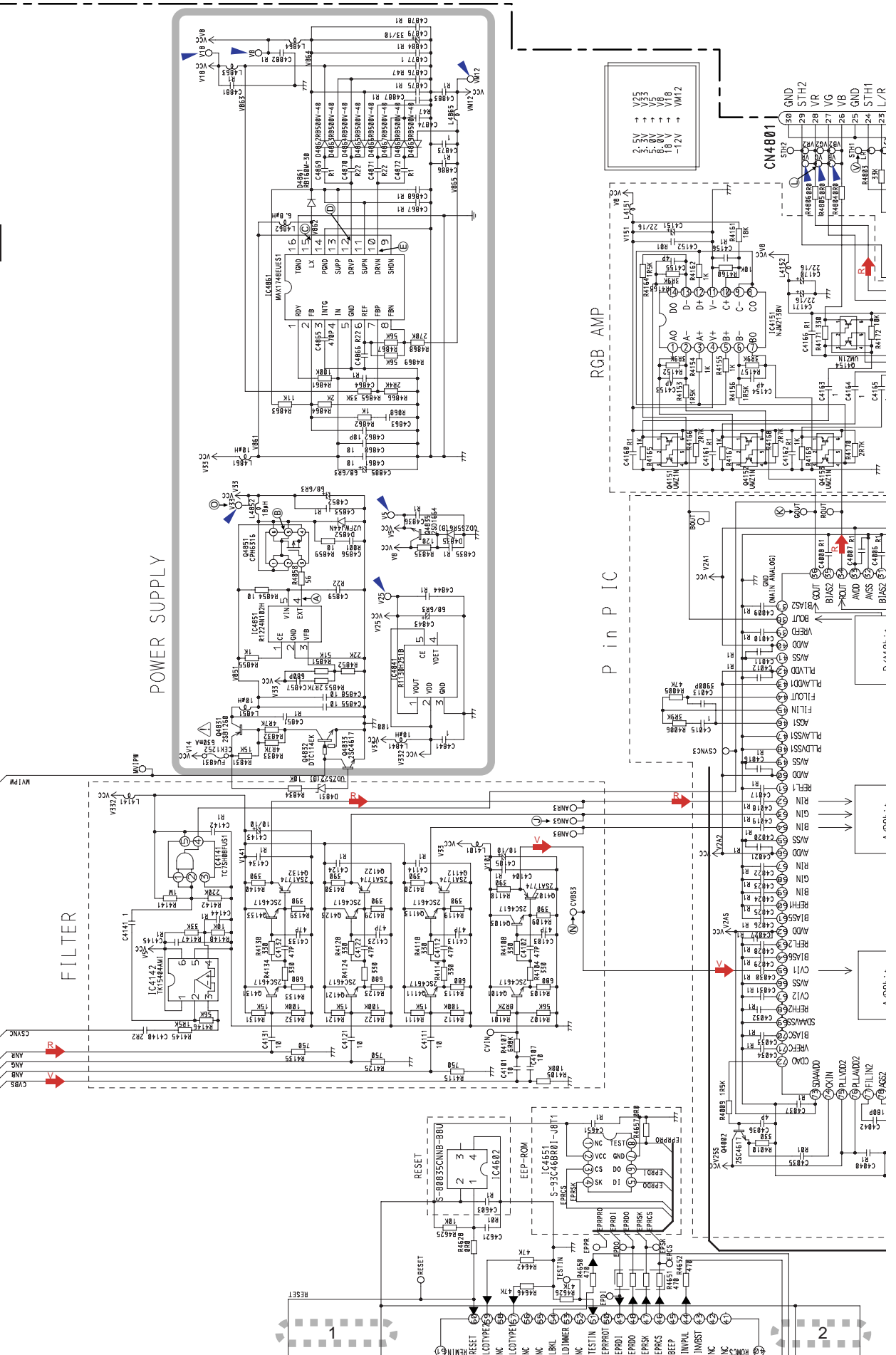
MONITOR PCB



G-a G-b



AVIC-N2/XU/UC



A

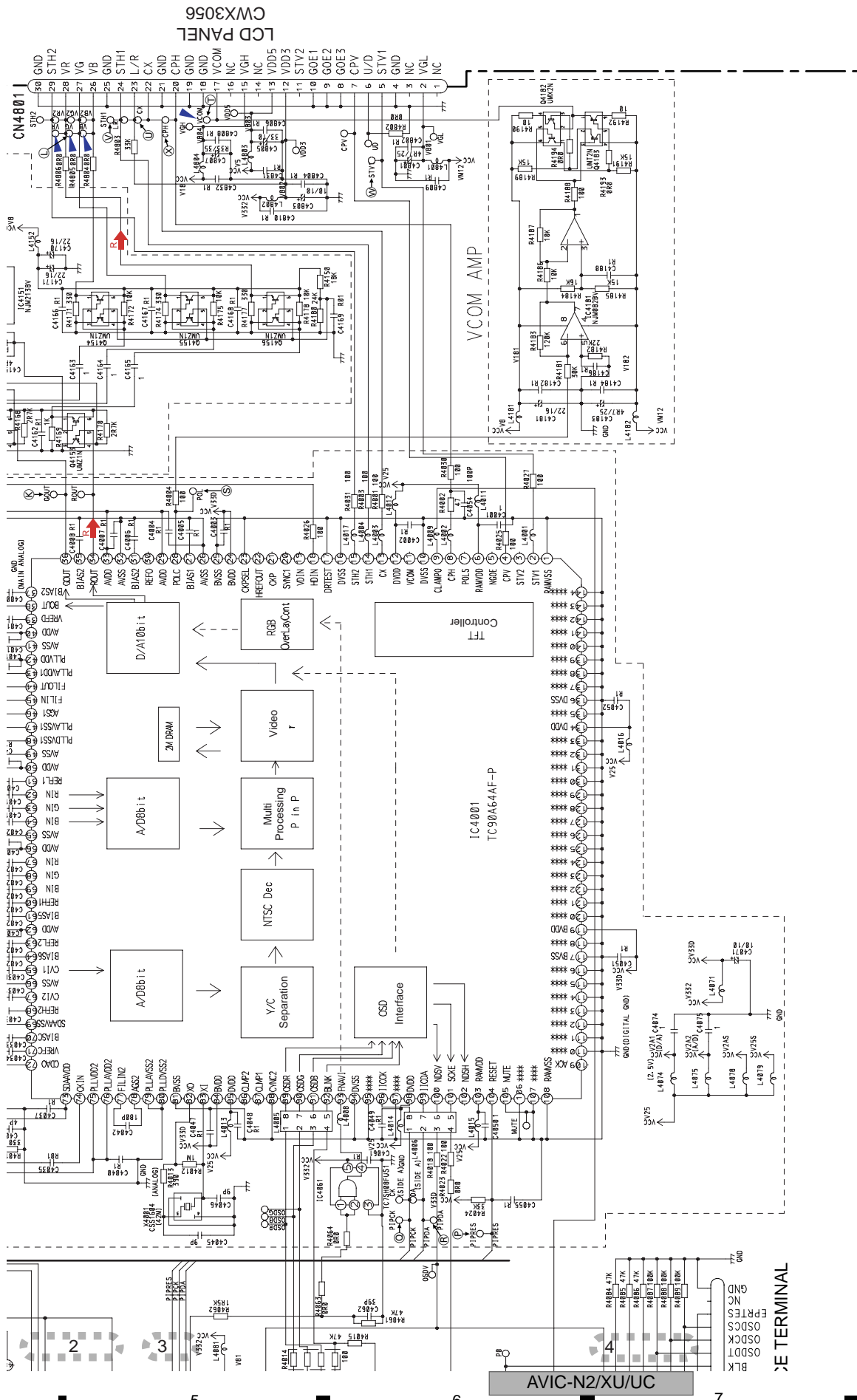
B

C

D

E

F



Composite Video Signal
 RGB Signal

MONITOR UNIT
 Consists of
 MONITOR PCB
 UPPER PCB
 INVERTER PCB

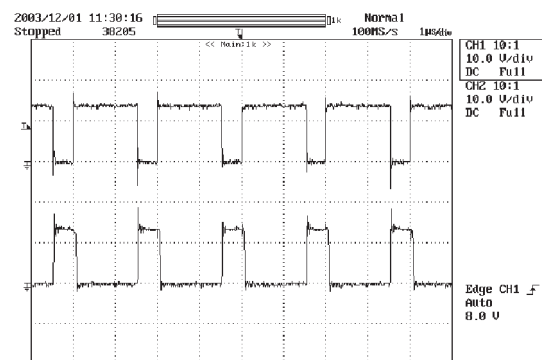
G-a G-b

Waveforms

The encircled number denote measuring pointes in the circuit diagram.

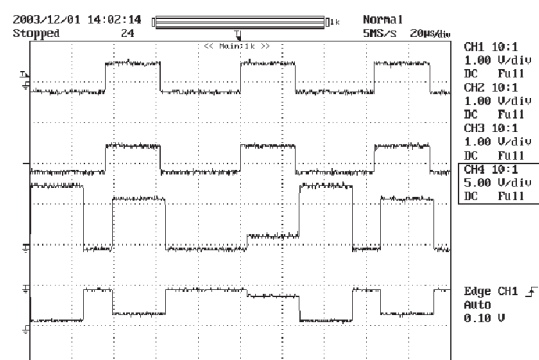
A

- Ⓐ CH1:IC4851 Pin 4
Ⓑ CH2:Q4851 Pin 5



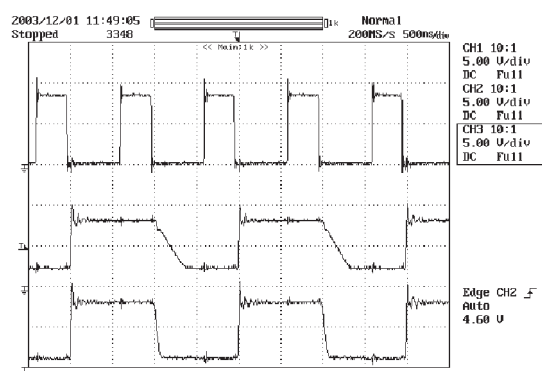
B

- INPUT : Color bar signal
Ⓘ CH1:ANG Ⓚ CH3:GOUT
Ⓛ CH2:ANG3 Ⓛ CH4:VG



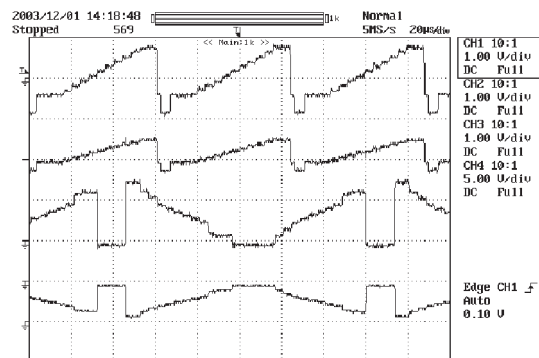
C

- Ⓒ CH1:IC4861 Pin 15 ⓔ CH3:IC4861 Pin 10
ⓓ CH2:IC4861 Pin 12



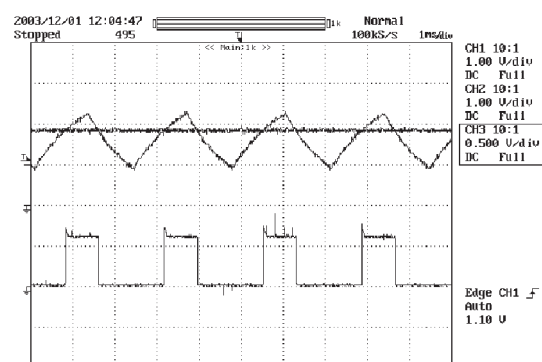
D

- INPUT : 10STEP VTR IN
Ⓜ CH1:CVBS Ⓚ CH3:GOUT
Ⓝ CH2:CVBS3 Ⓛ CH4:VG



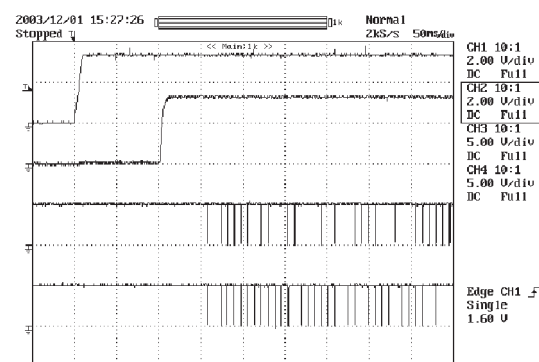
E

- Ⓕ CH1:IC4901 Pin 2 ⓖ CH3:IC4901 Pin 7
Ⓖ CH2:IC4901 Pin 6



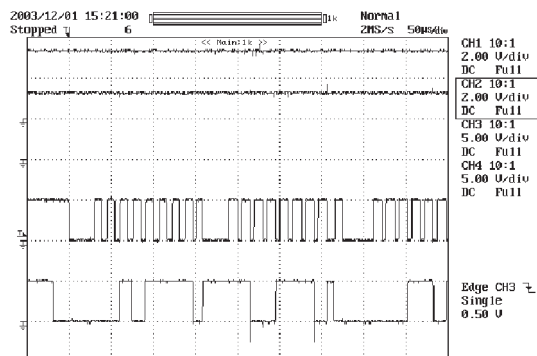
F

- Ⓖ CH1:V33 ⓐ CH3:PIPCK
Ⓖ CH2:PIPRES ⓐ CH4:PIPDA



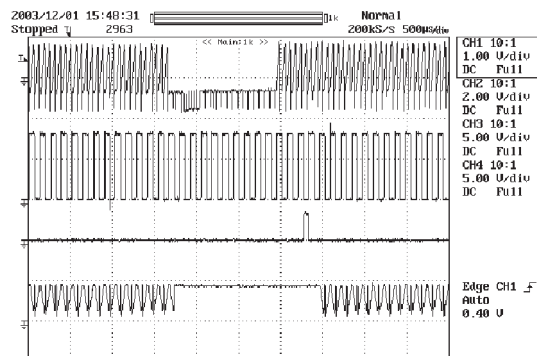
Ⓞ CH1:V33
Ⓟ CH2:PIPRES

Ⓞ CH3:PIPCK
Ⓡ CH4:PIPPA



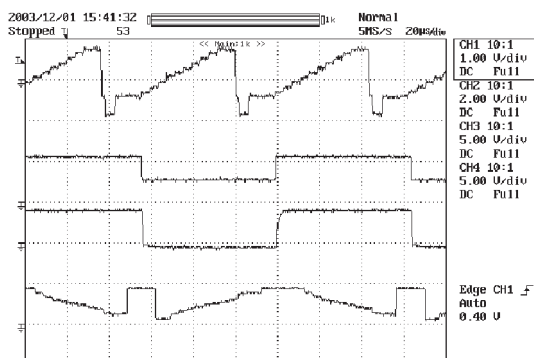
Ⓜ CH1:CVBS
Ⓢ CH2:CX

Ⓜ CH3:STV1
Ⓢ CH4:VG



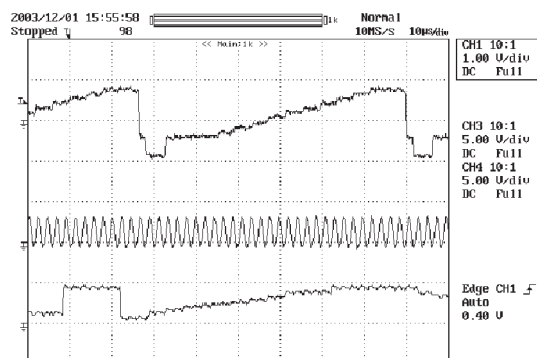
Ⓜ CH1:CVBS
Ⓢ CH2:POL

Ⓢ CH3:VCOM
Ⓢ CH4:VG



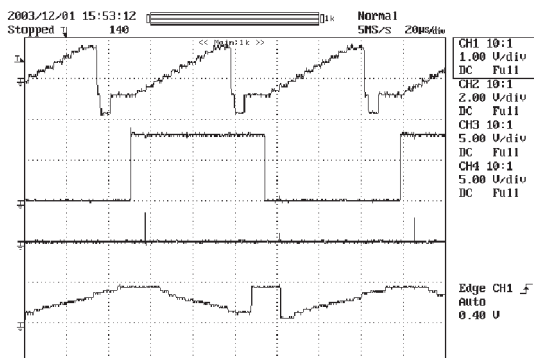
Ⓜ CH1:CVBS

Ⓢ CH3:CPH
Ⓢ CH4:VG

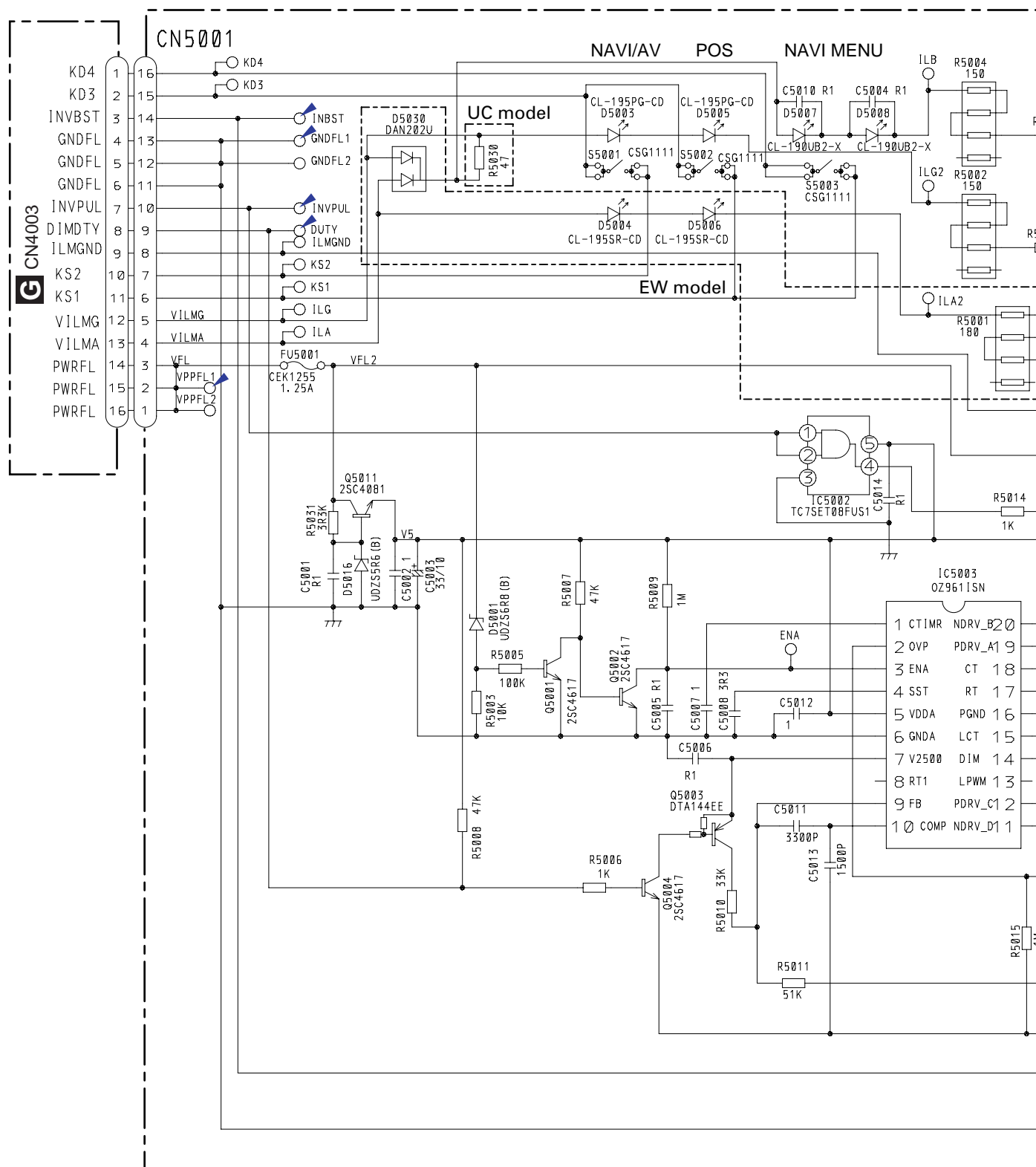


Ⓜ CH1:CVBS
Ⓢ CH2:CX

Ⓢ CH3:STH1
Ⓢ CH4:VG

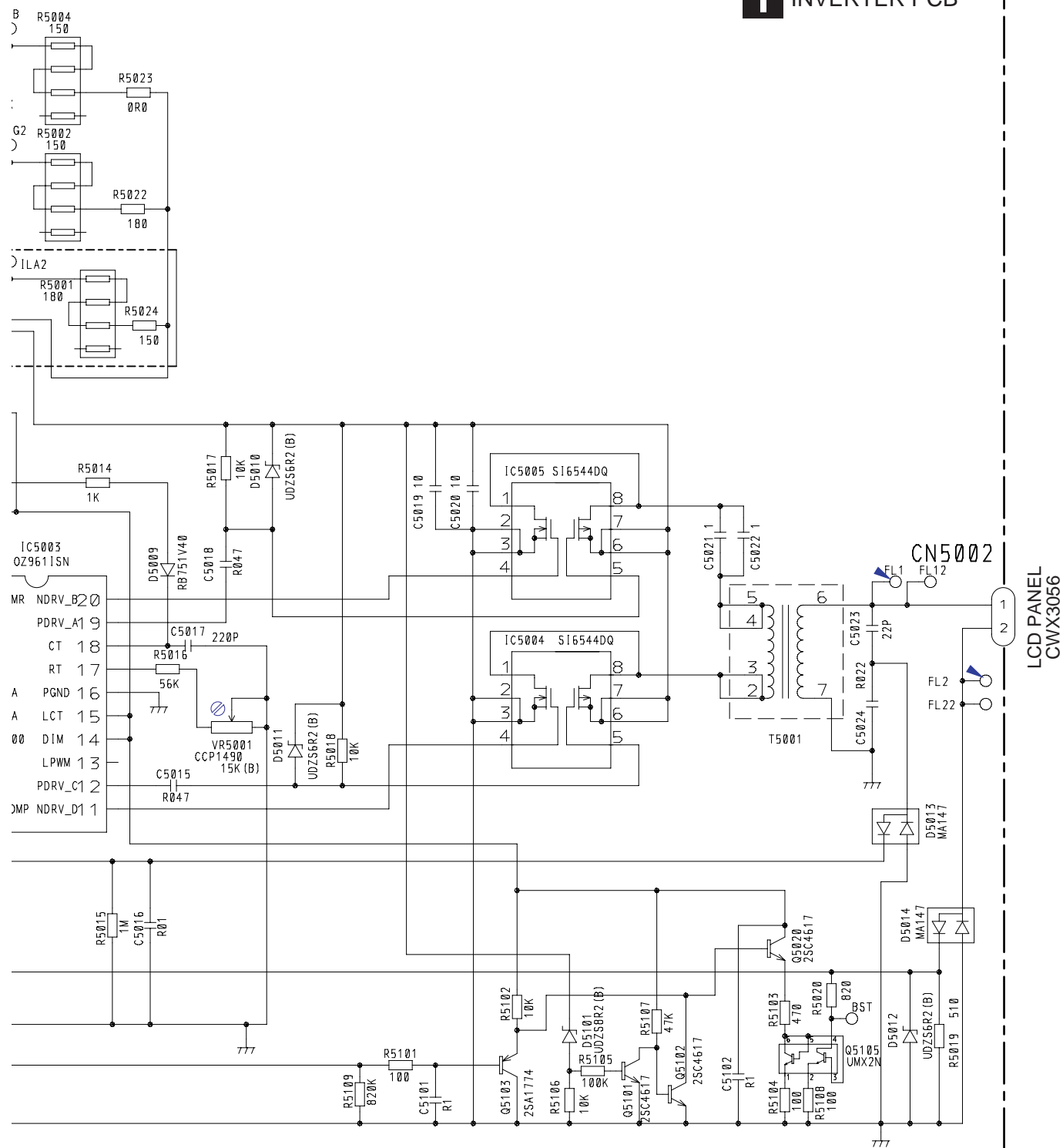


3.17 INVERTER PCB



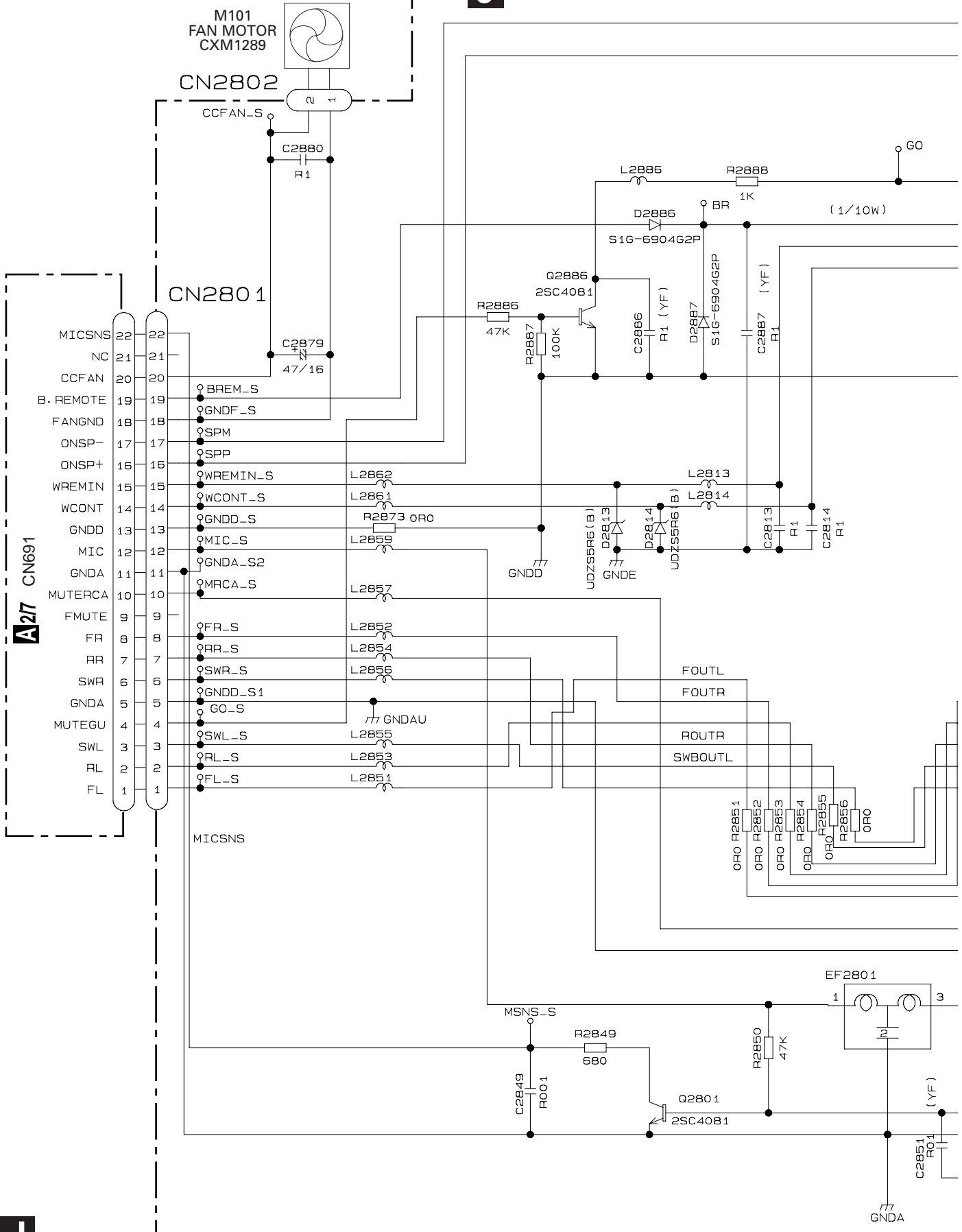
MONITOR UNIT
Consists of
MONITOR PCB
UPPER PCB
INVERTER PCB

I INVERTER PCB



3.18 RELAY PCB

J RELAY PCB

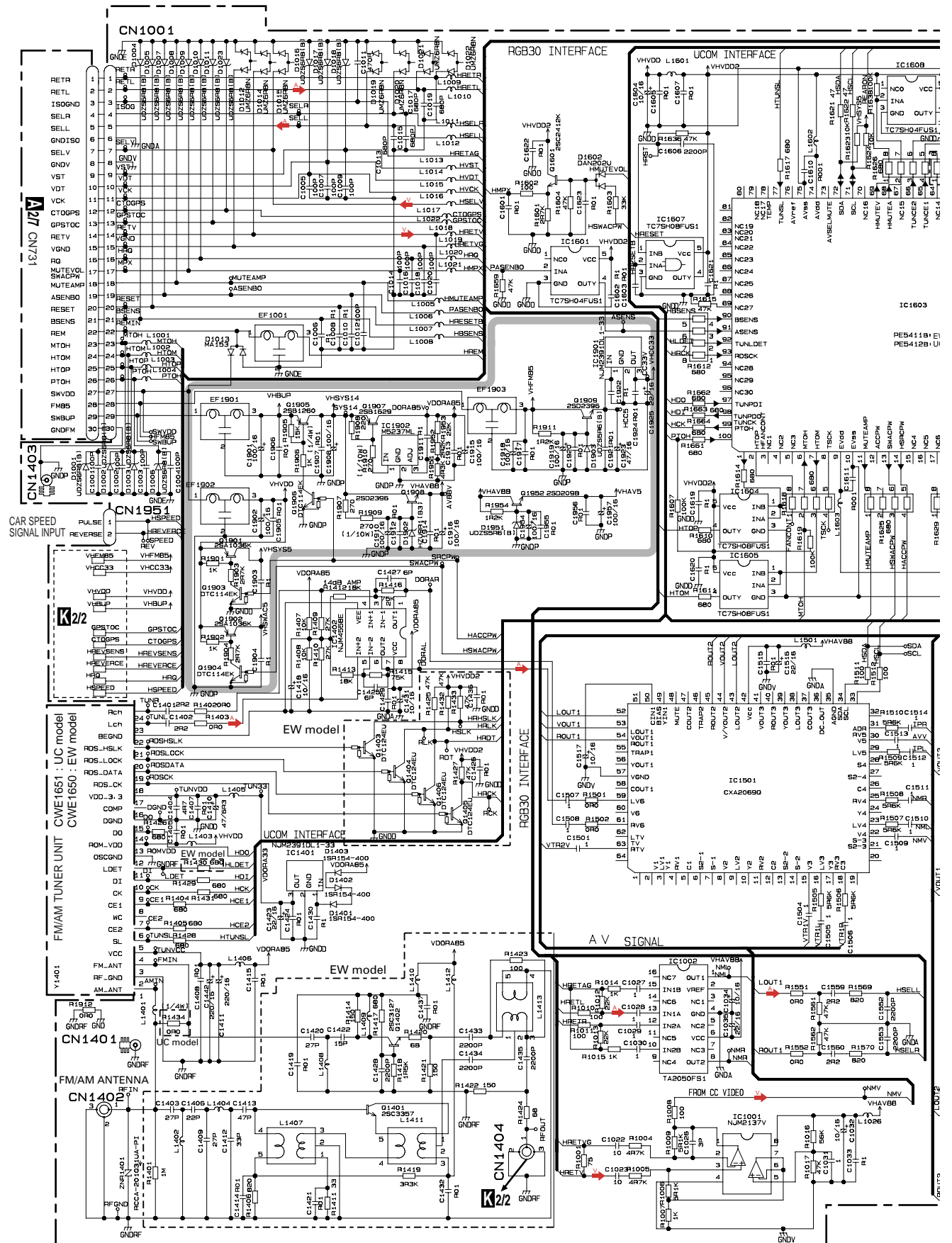




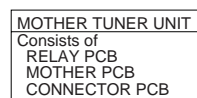
J

3.19 MOTHER PCB (H/A SYSTEM)(GUIDE PAGE)

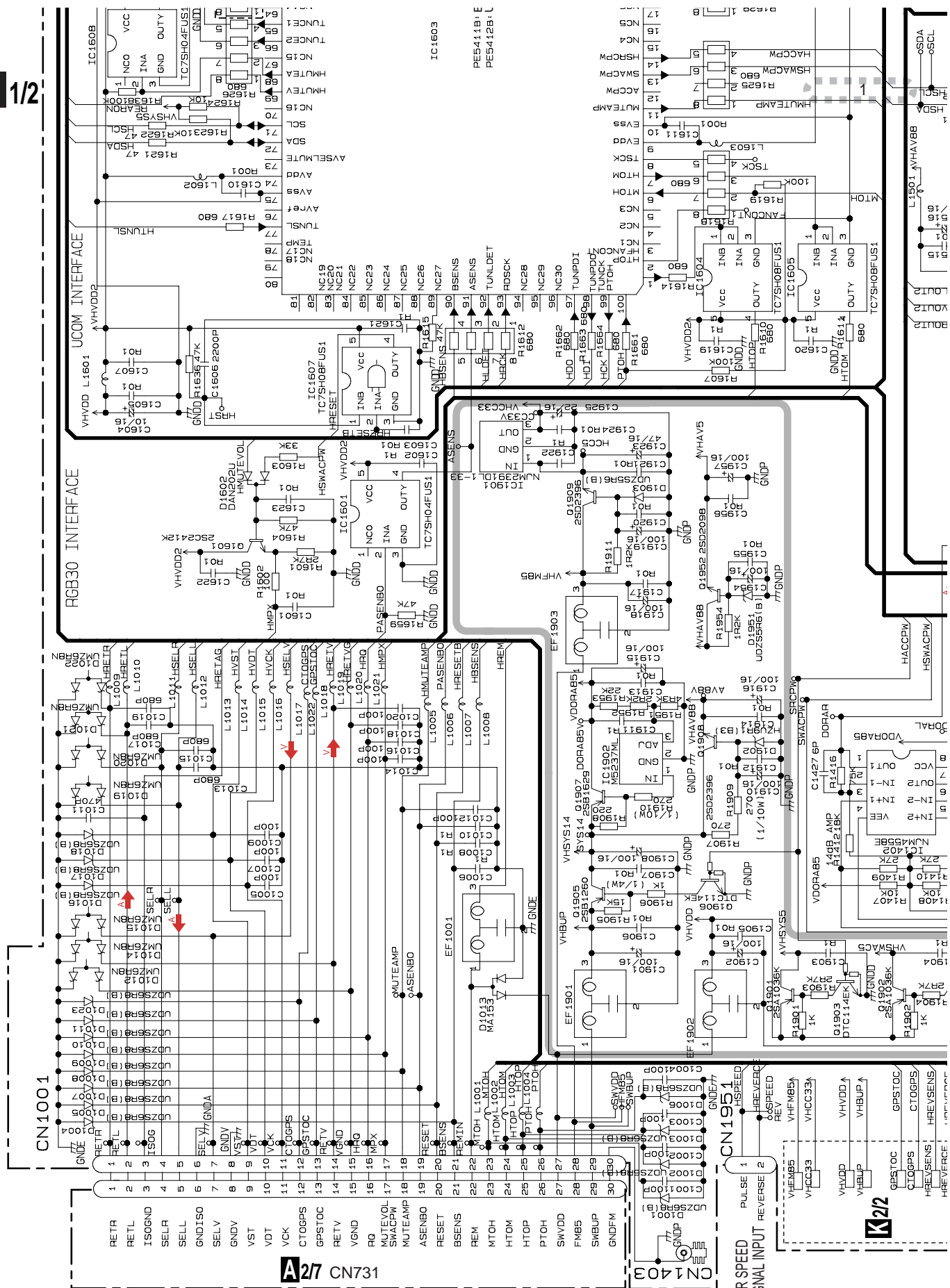
K-a 1/2



K^{1/2} MOTHER PCB (H/A SYSTEM)



A2/7 CN731





A ■
E ■
C ■
D ■
E ■
F ■

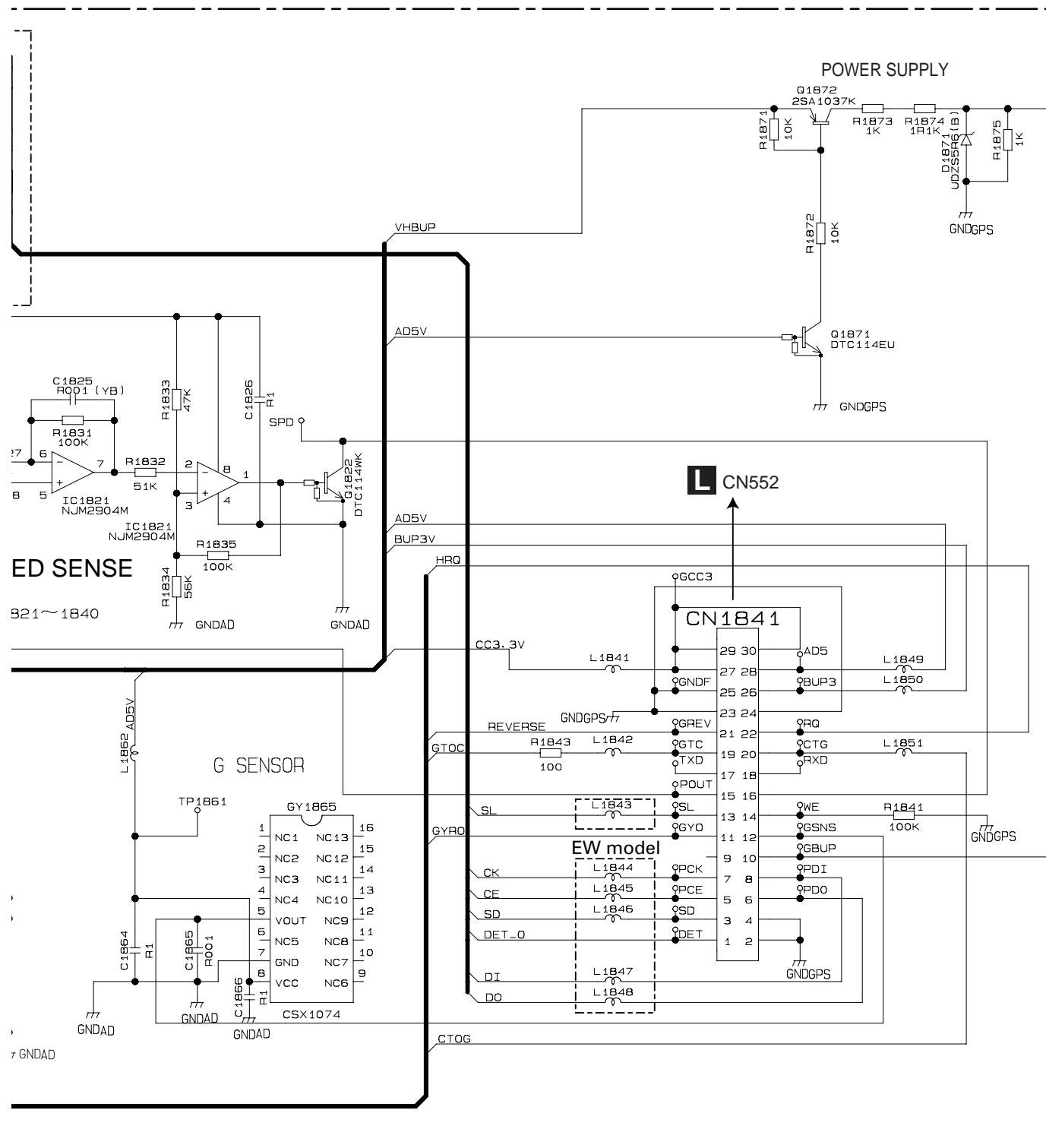
4



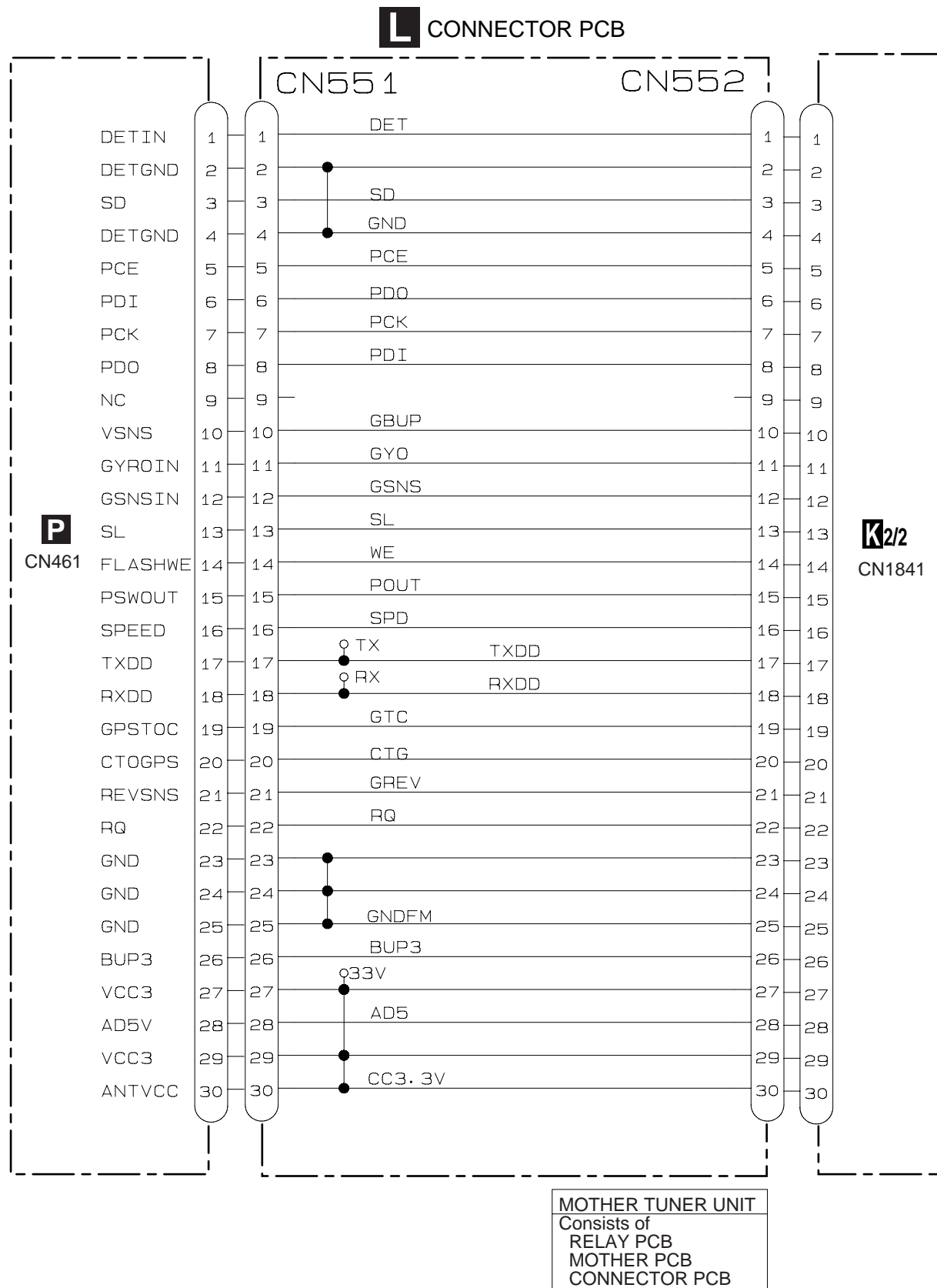
903



K2/2 MOTHER PCB (SENSOR)



3.21 CONNECTOR PCB



■

5

■

6

■

7

■

8

■

A

■

B

■

C

■

D

■

E

■

F

■

5

■

6

AVIC-N2/XU/UC

■

7

■

8

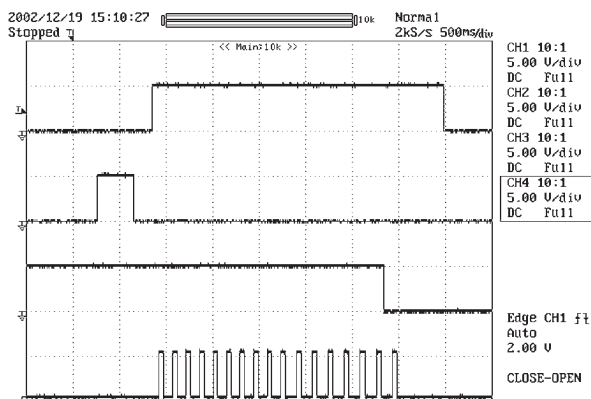
■

Waveforms

The encircled number denote measuring points in the circuit diagram.

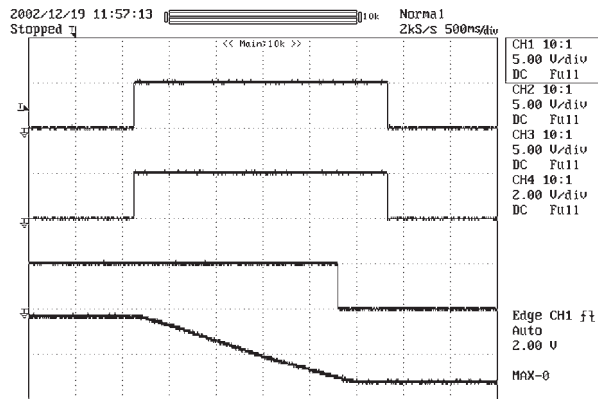
• CLOSE -> OPEN

- ① CH1:MTR2 ② CH2:MTRSEL
③ CH3:LIFTSW ④ CH4:LFTPLS



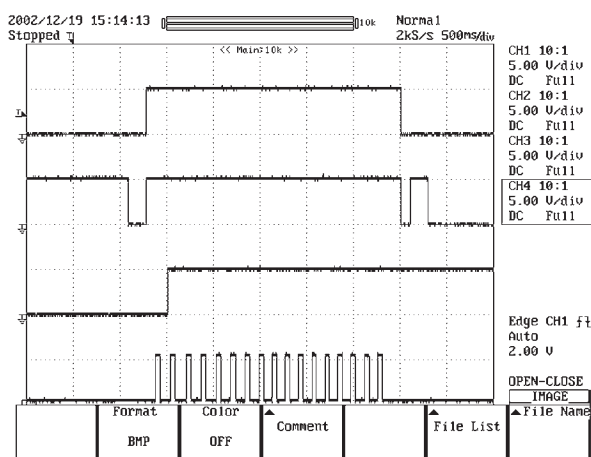
• MAX -> Deg.0 DOWN

- ⑤ CH1:MTR1 ② CH2:MTRSEL
⑥ CH3:ANGLSW ⑦ CH4:ANGLIN



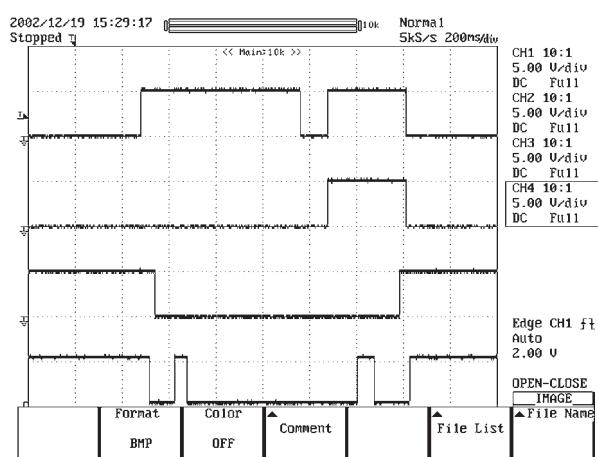
• OPEN -> CLOSE

- ① CH1:MTR2 ② CH2:MTRSEL
③ CH3:LIFTSW ④ CH4:LFTPLS



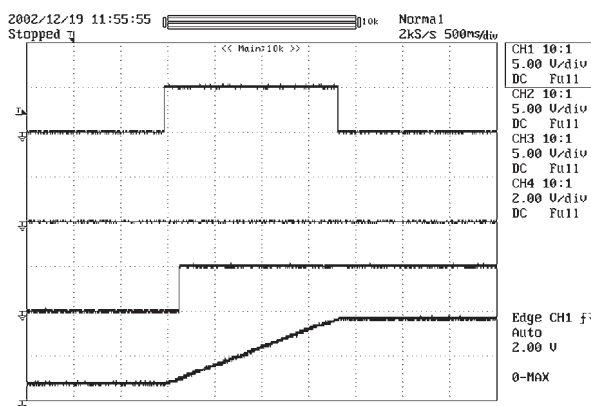
• Set back open -> Set

- ① CH1:MTR2 ⑧ CH2:MTRS
③ CH3:LIFTSW ④ CH4:LFTPLS



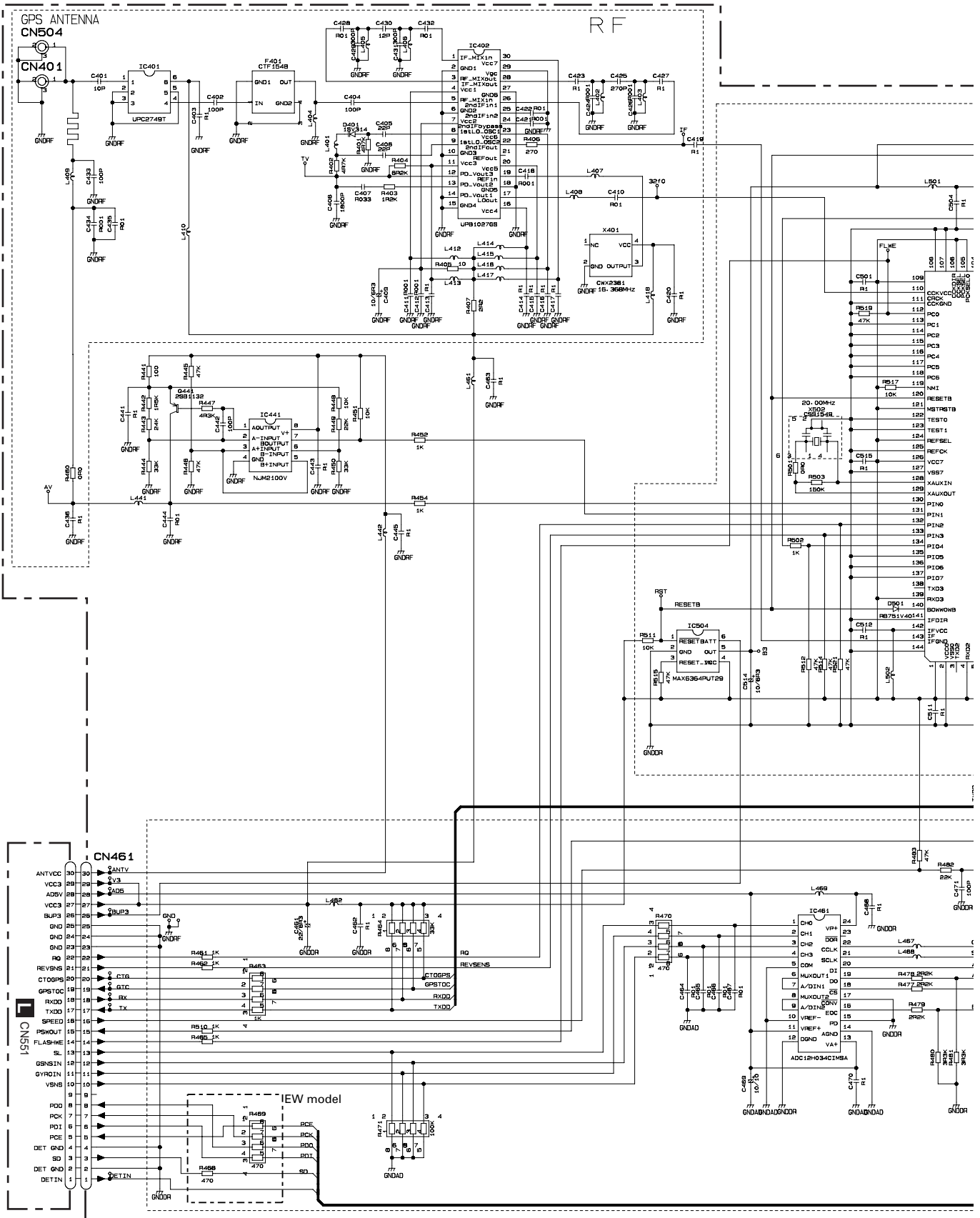
• 0->MAX

- ⑤ CH1:MTR1 ② CH2:MTRSEL
⑥ CH3:ANGLSW ⑦ CH4:ANGLIN



3.23 GPS UNIT(GUIDE PAGE)

P-a



A

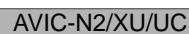
B

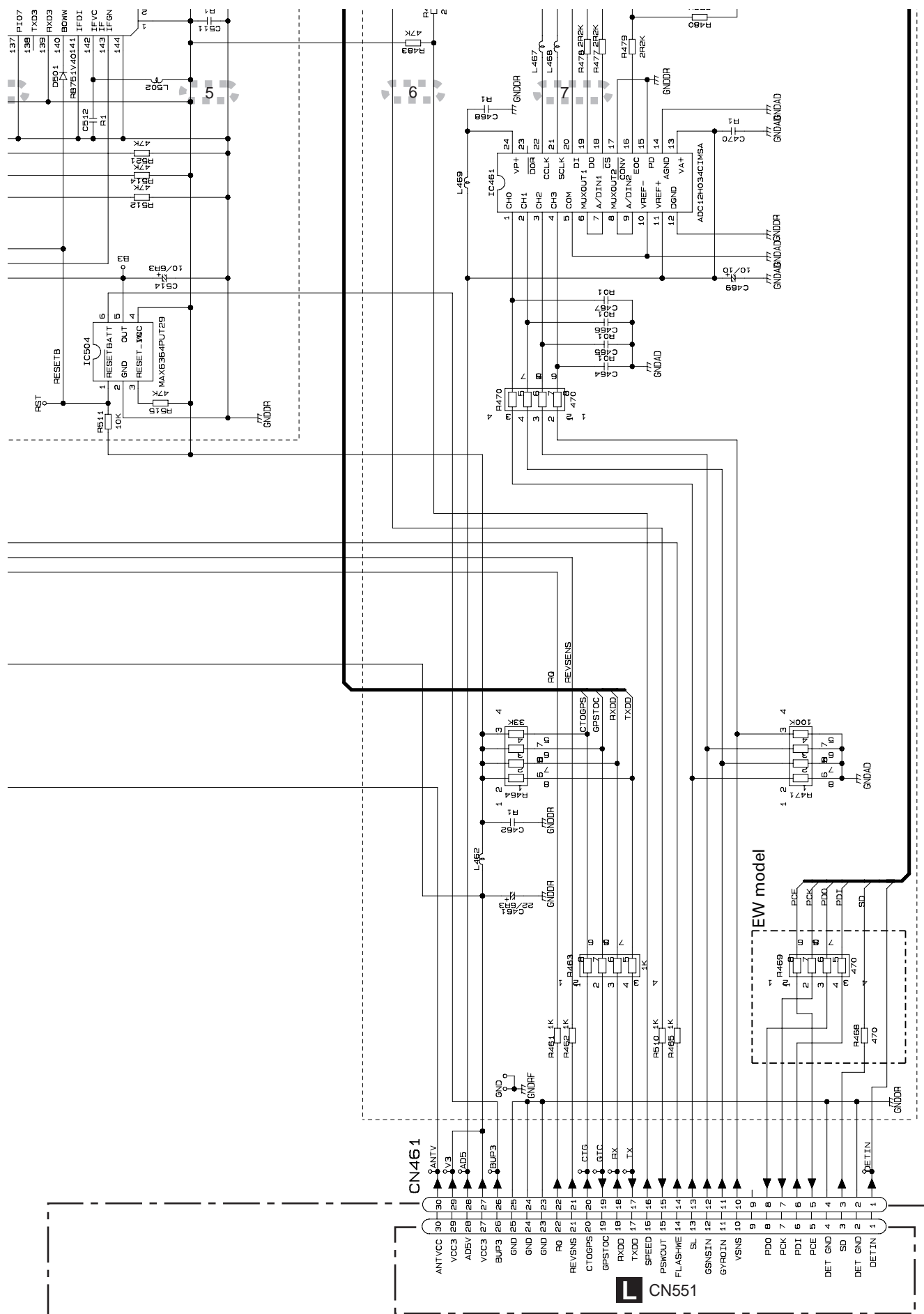
C

D

E

F

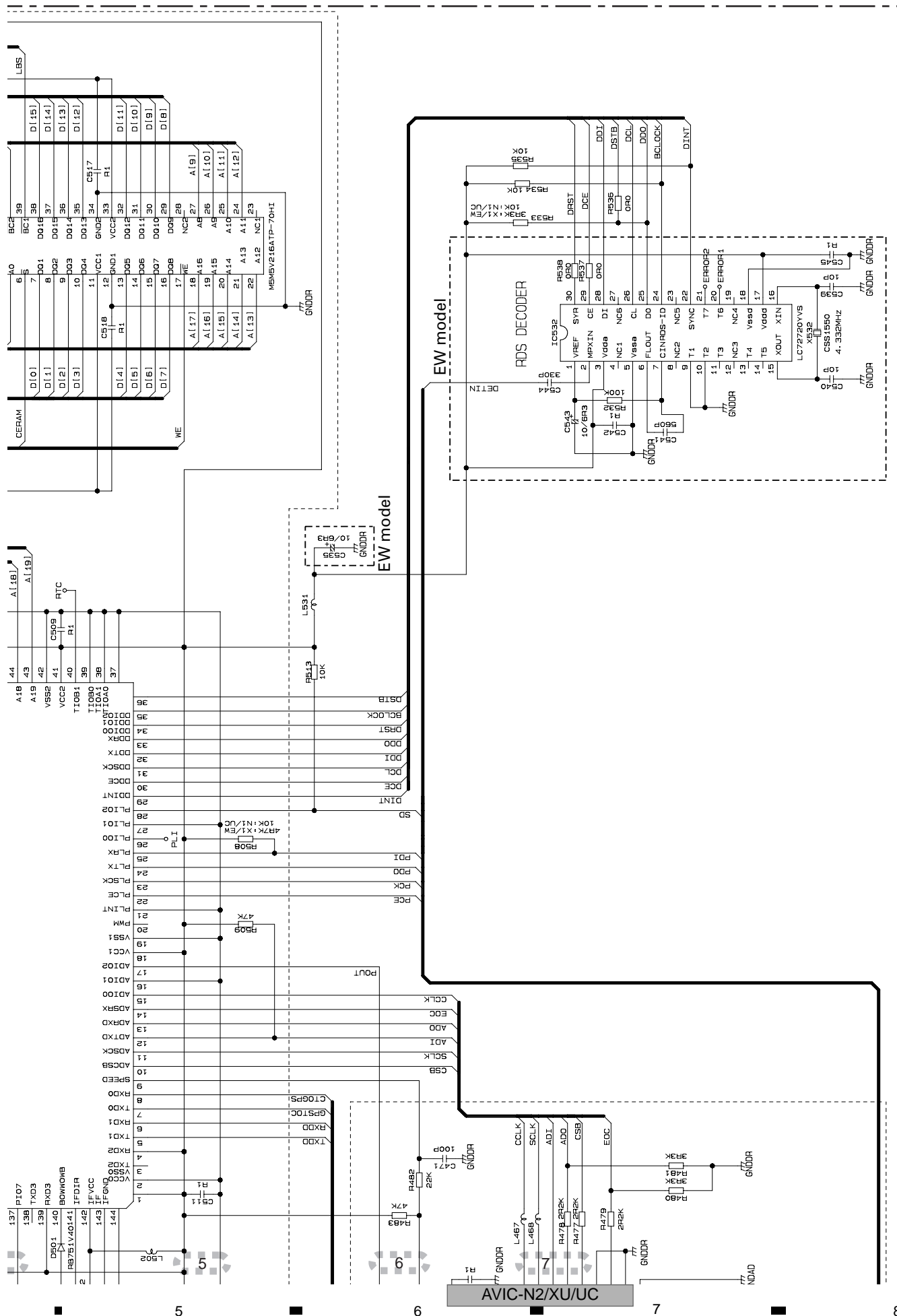




P-b

P-a	P-b
-----	-----

P-a

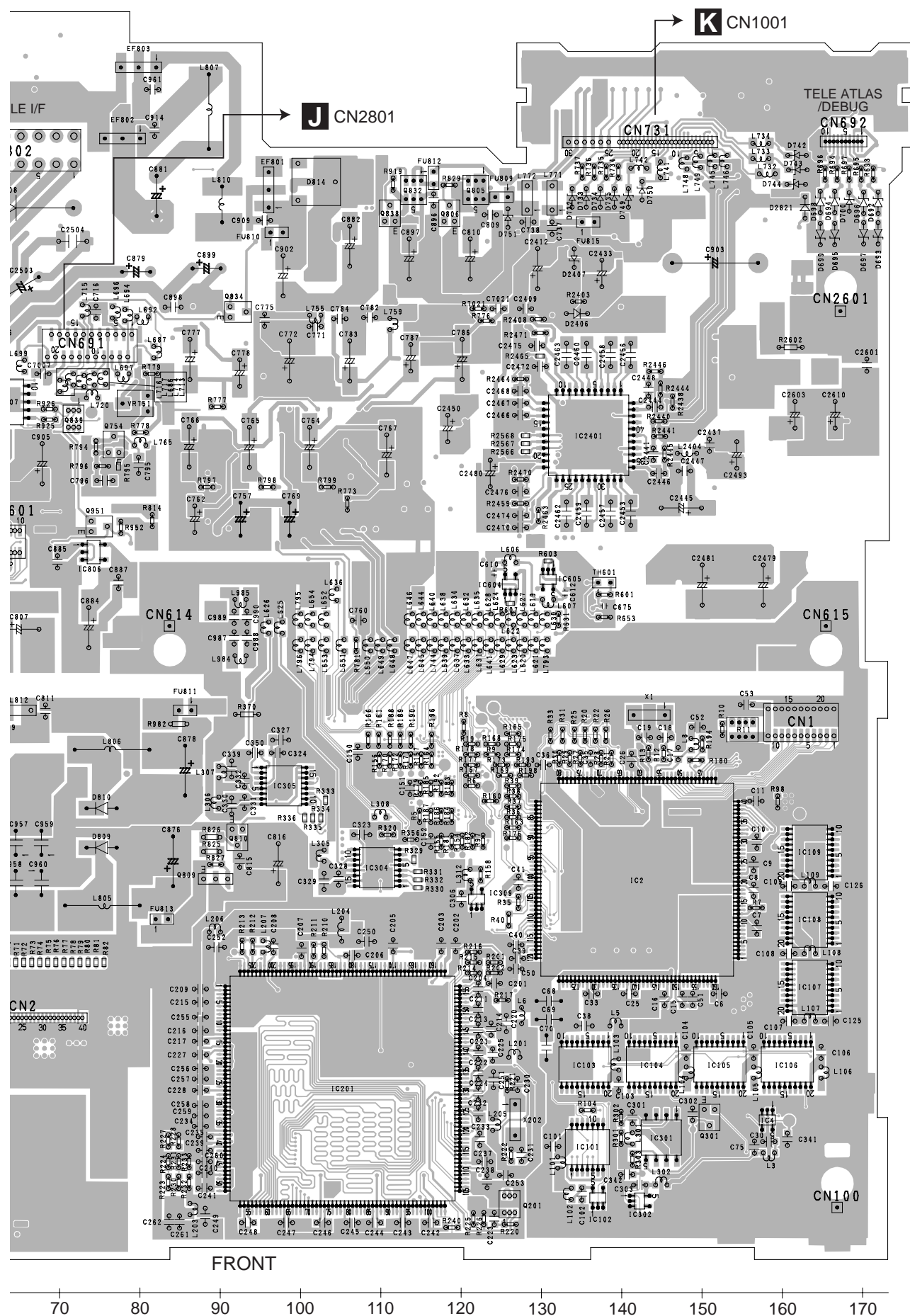


4.1 CC UNIT

1. The parts mounted on this PCB include all necessary parts for several destination.
For further information for respective destinations, be sure to check with the schematic diagram.

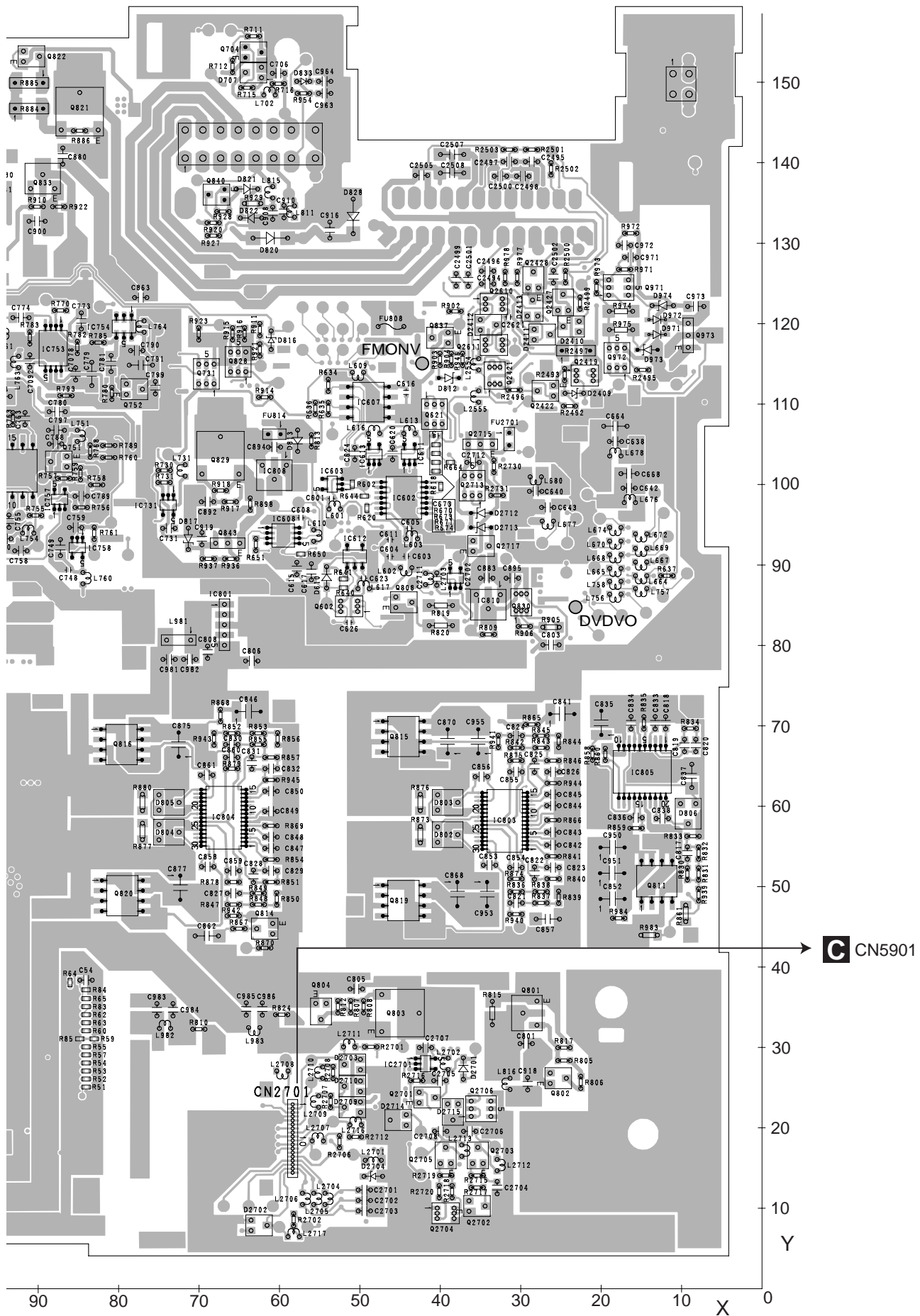
A diagram of a P.C. board with labels: Connector, Capacitor, P.C. Board, Chip Part, SIDE A, and SIDE B. The board is shown with an arrow pointing to the right. A connector is on the left, a capacitor is in the middle, and a chip part is on the right. The top side is labeled SIDE A and the bottom side is labeled SIDE B.





AVIC-N2/XU/UC

SIDE B

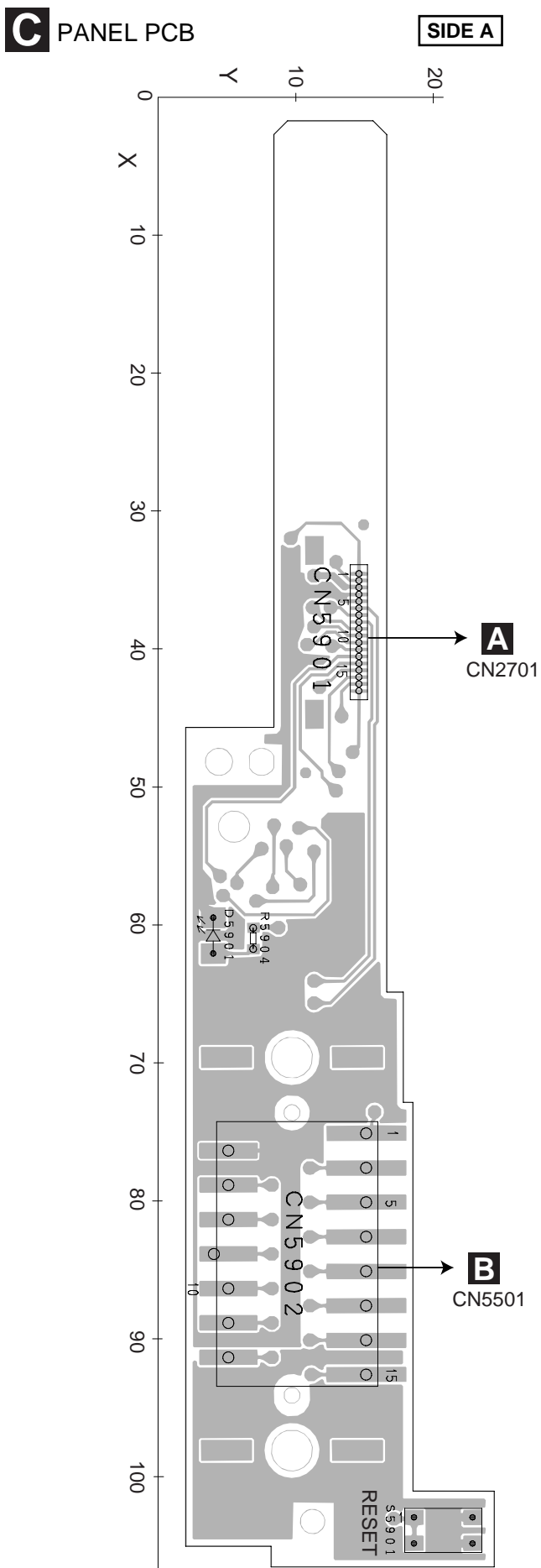
A
B
C
D
E
F

4

126



4.3 PANEL PCB



SIDE B

IC,Q

Q1101

Q1102

IC1302

IC1303

IC1604

IC1401

IC1505

IC1607

IC1602

IC1605

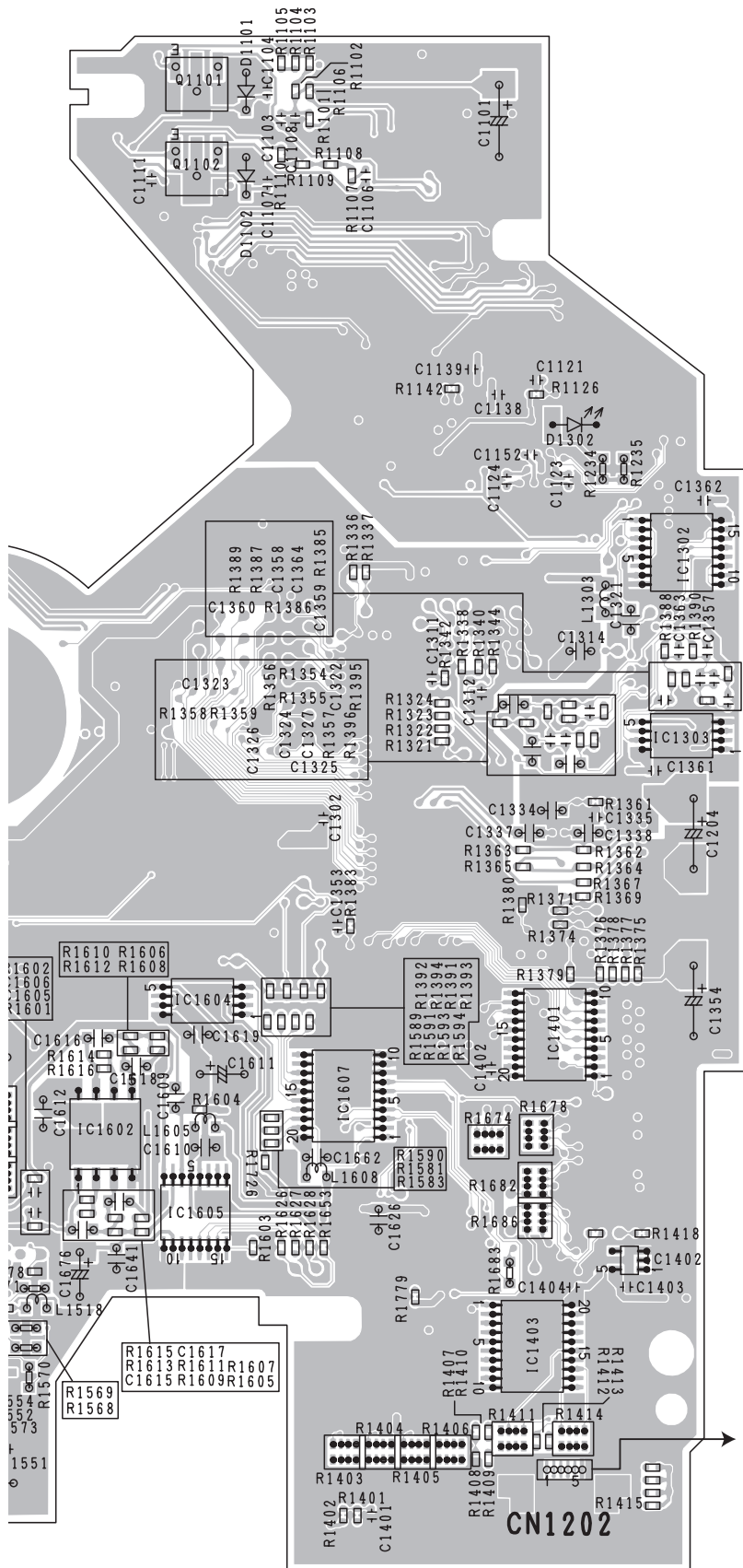
IC1705

IC1402

IC1501

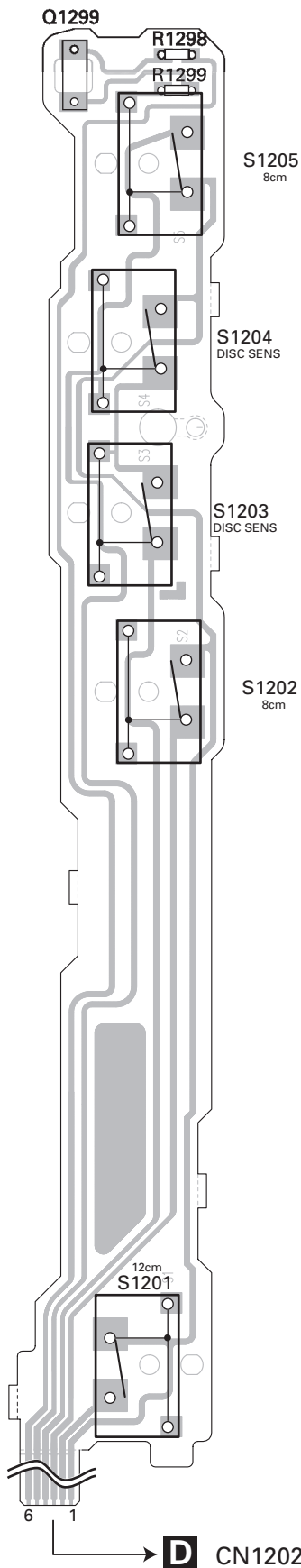
IC1508

IC1403

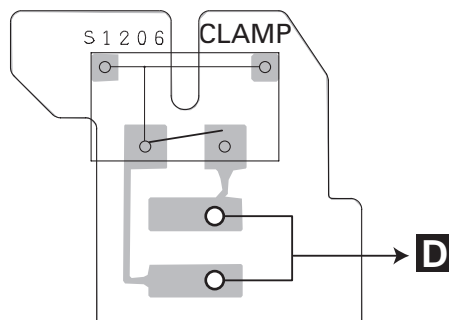


4.5 COMPOUND UNIT(A) AND COMPOUND UNIT(B)

E COMPOUND UNIT(A)



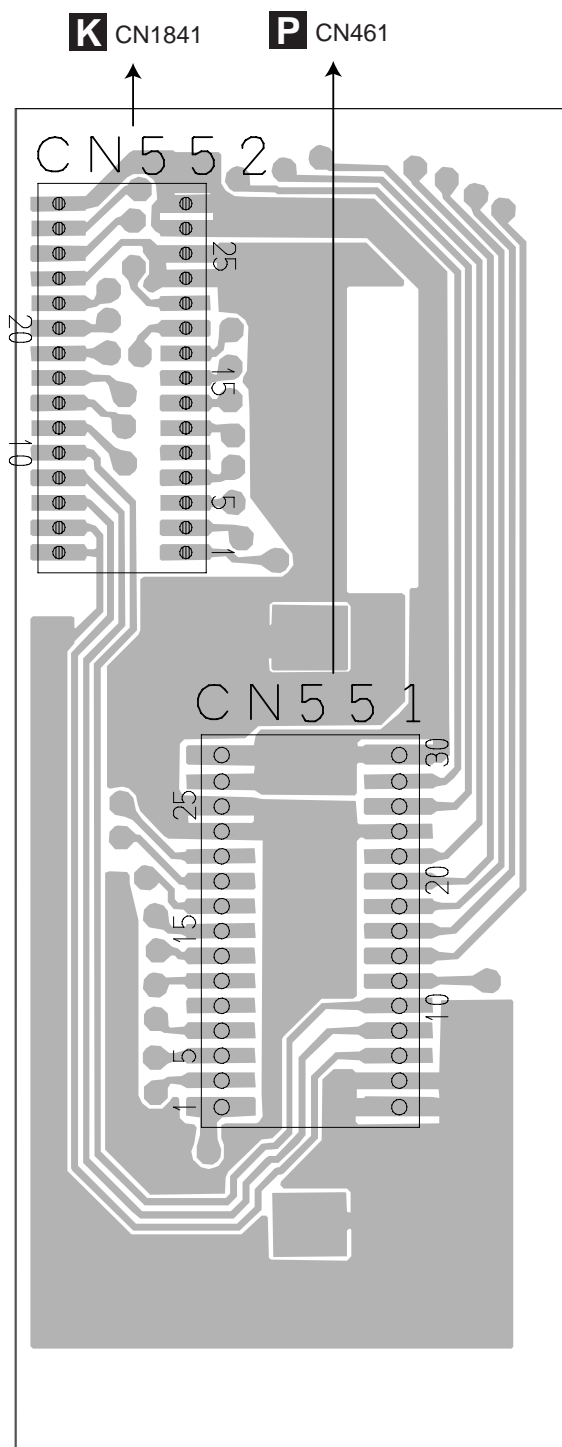
F COMPOUND UNIT(B)



4.6 CONNECTOR PCB

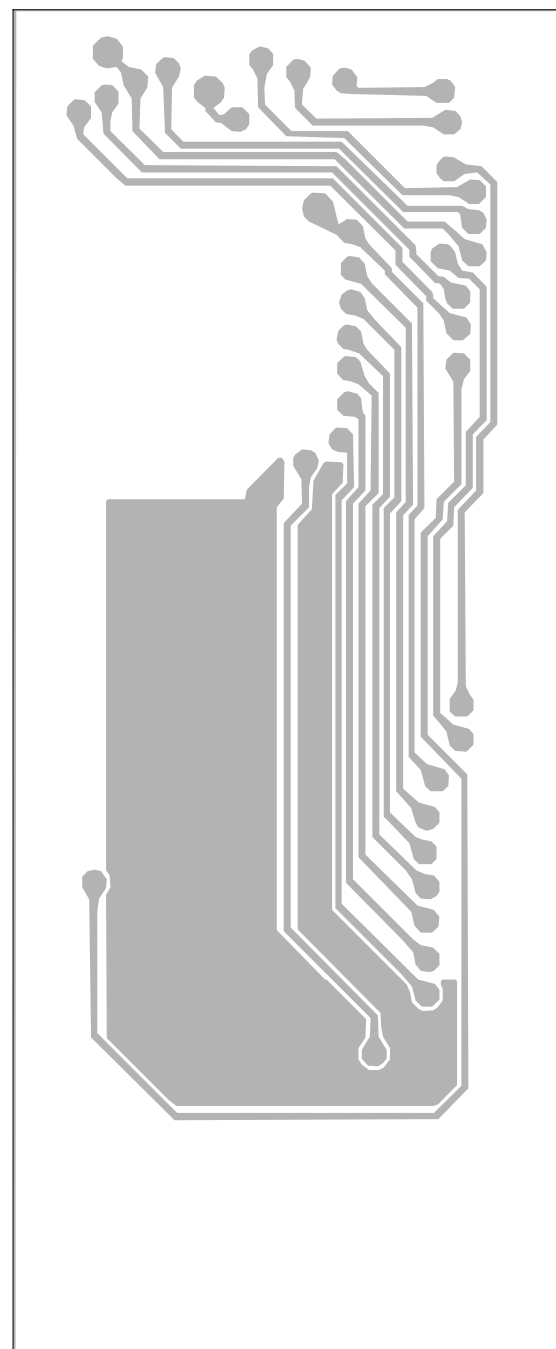
L CONNECTOR PCB

SIDE A



L CONNECTOR PCB

SIDE B



4

A



C

D

F

F

G MONITOR PCB

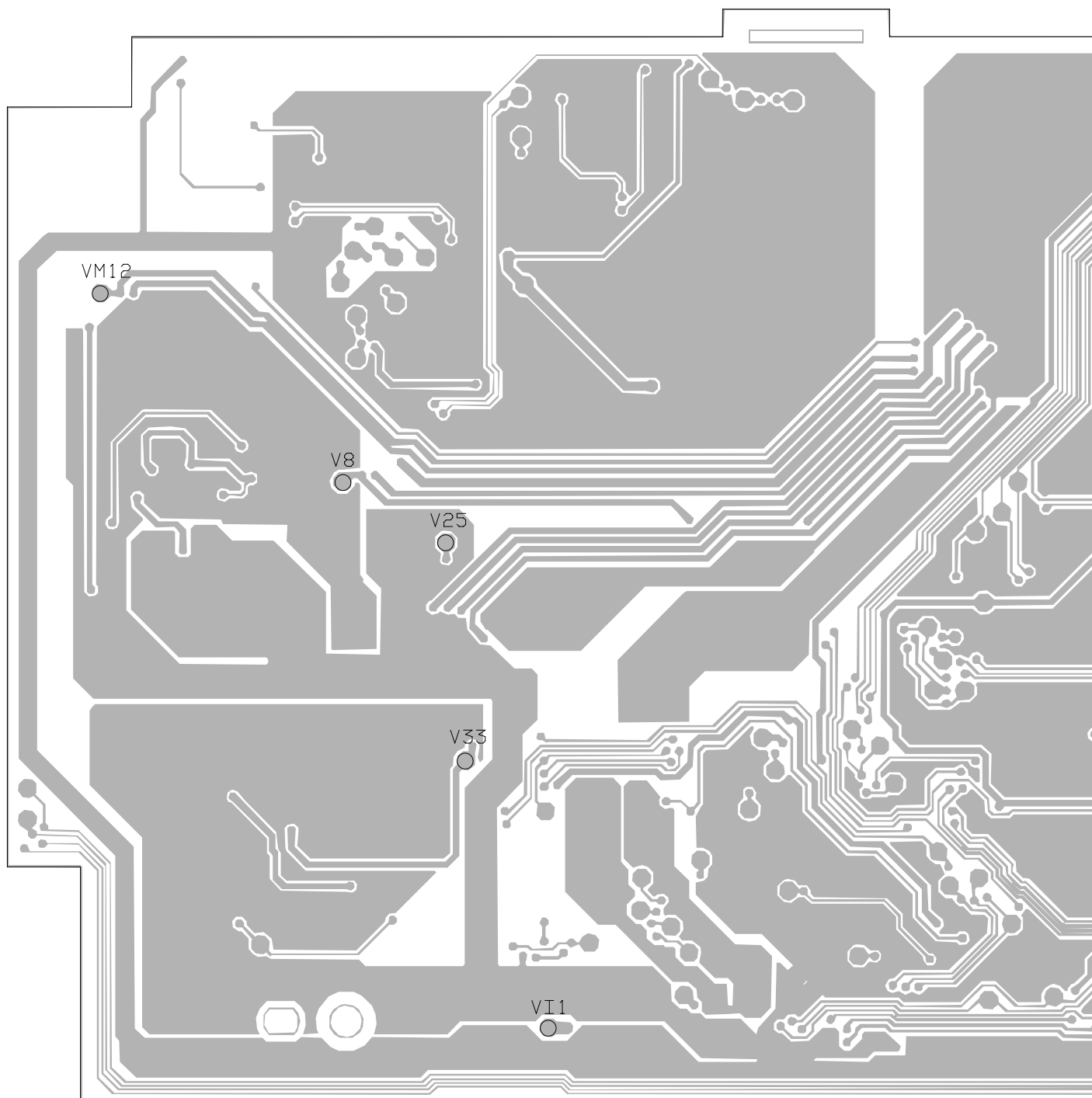
B

C

D

E

F



150

140

130

120

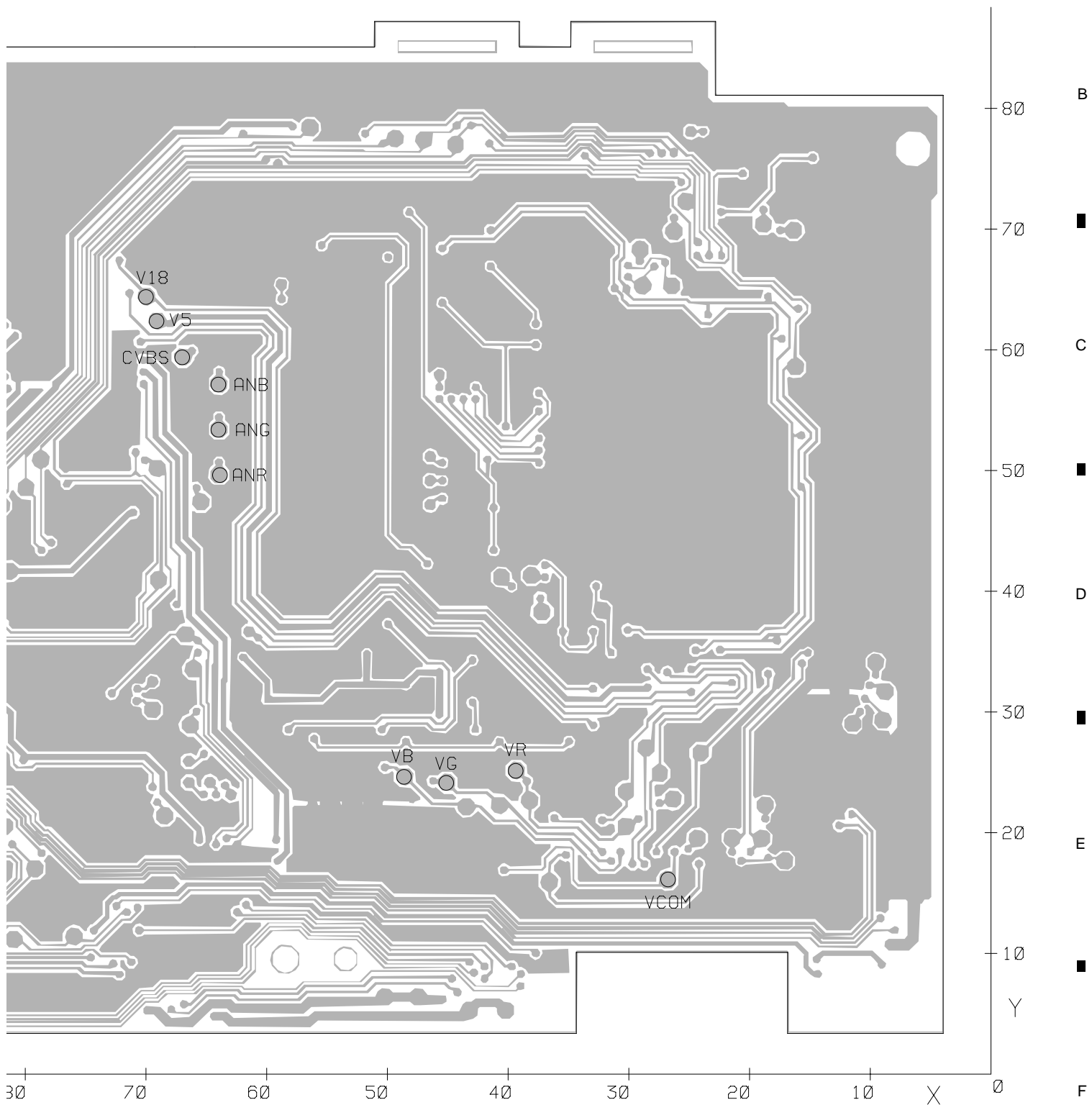
110

100

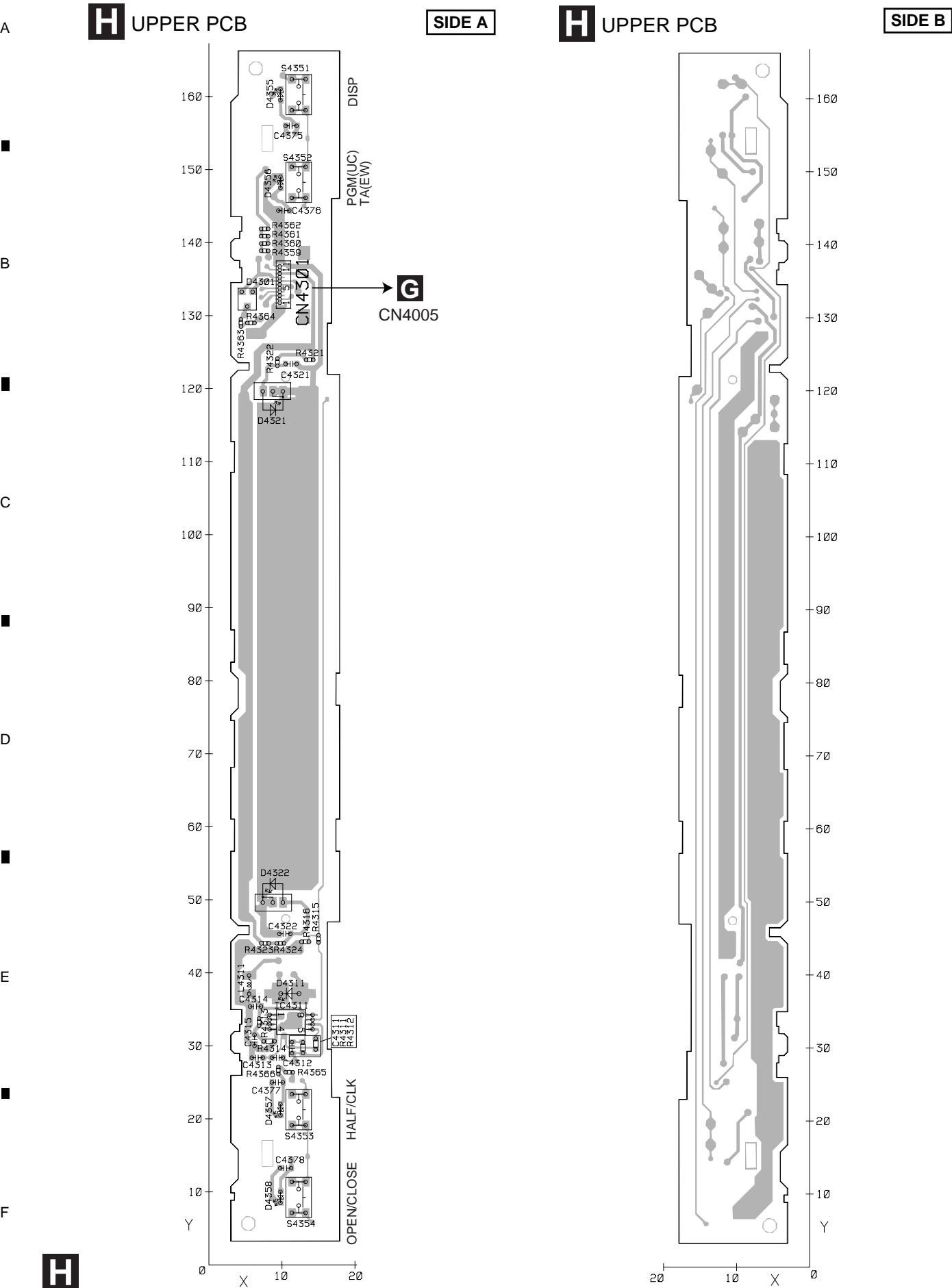
90

80

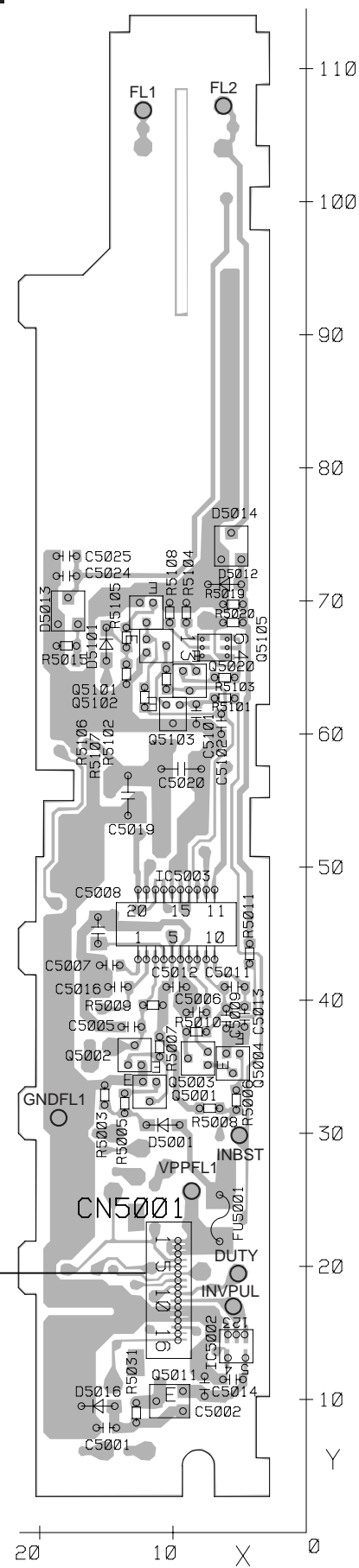
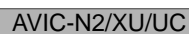
SIDE B



4.8 UPPER PCB



SIDE B

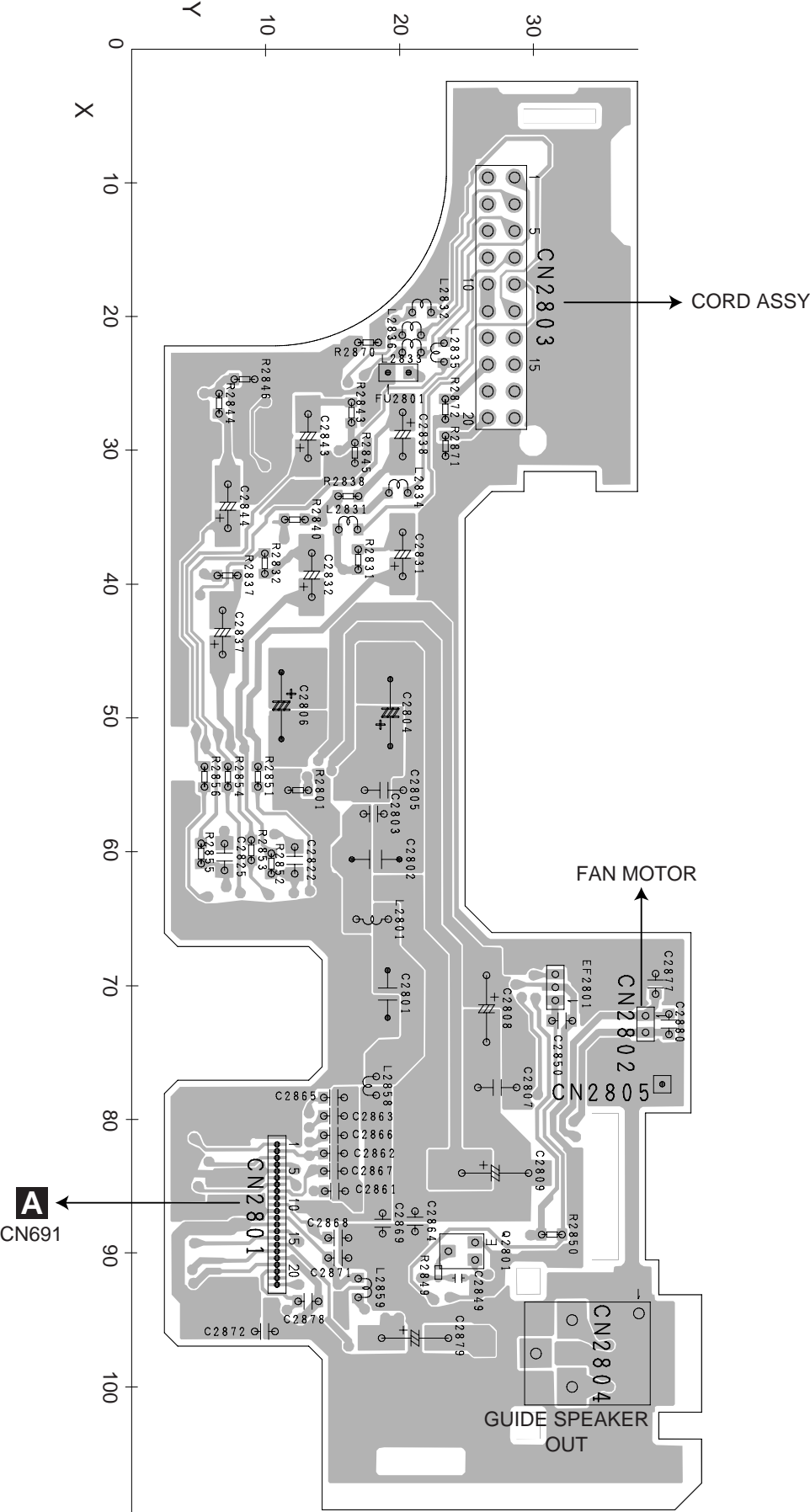


4.10 RELAY PCB

A

J RELAY PCB

SIDE A



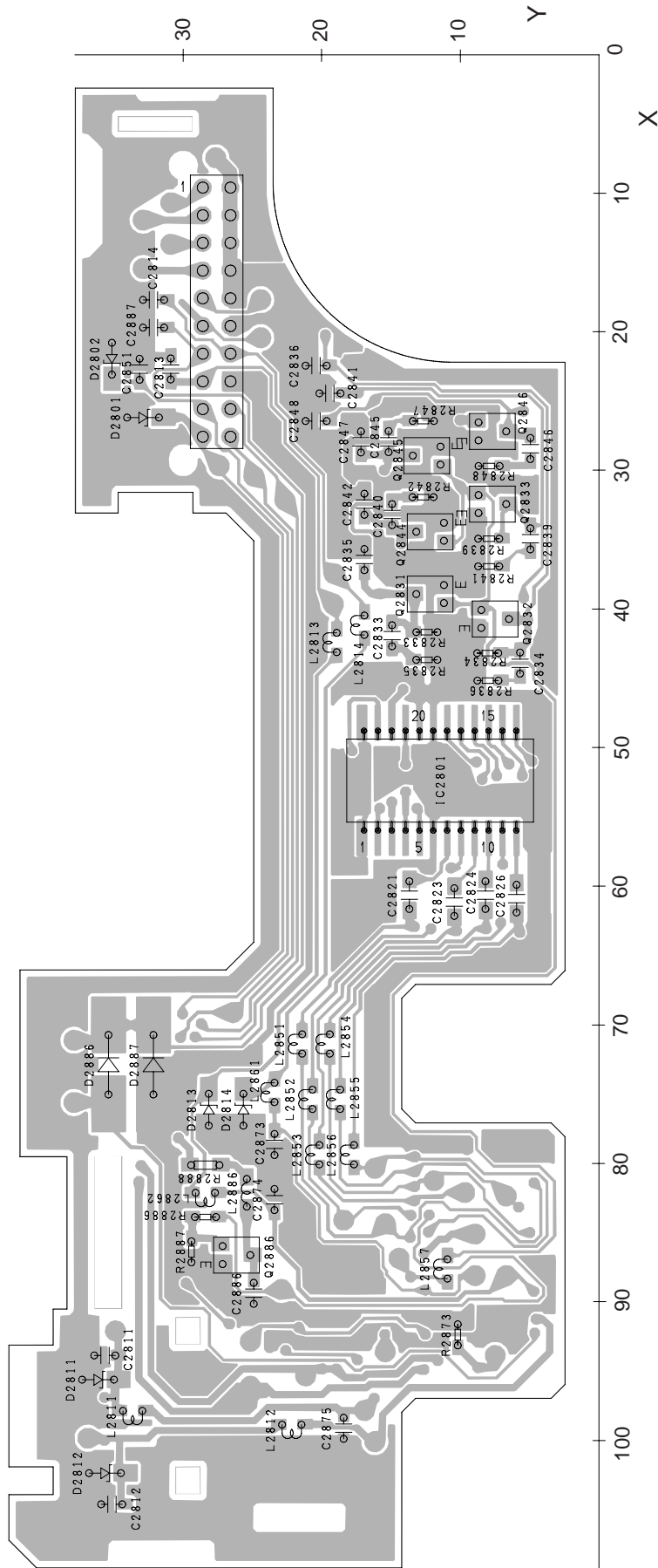
B

C

D

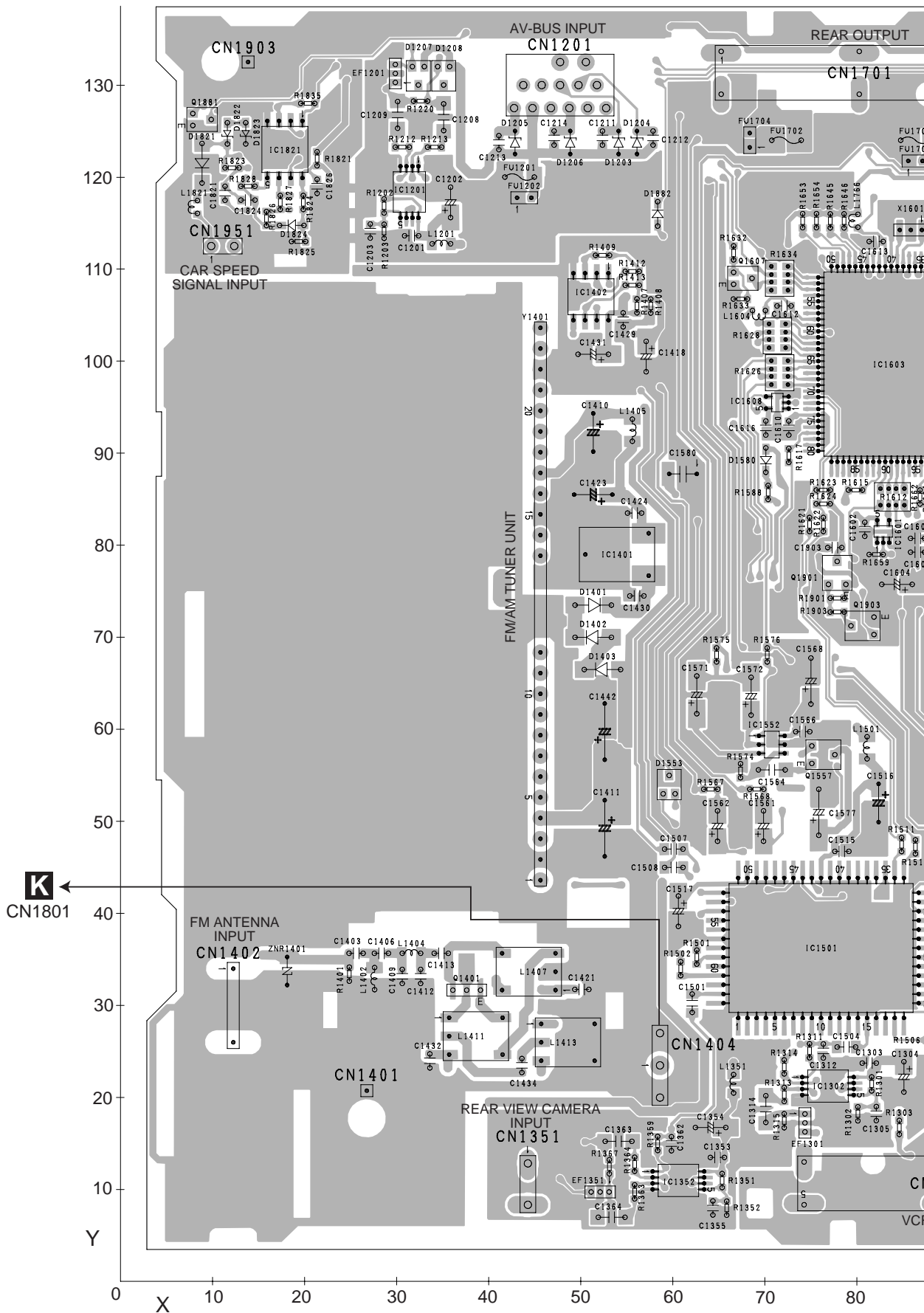
E

F



4.11 MOTHER PCB

K MOTHER PCB





4.12 GPS UNIT

A

P GPS UNIT

SIDE A

IC,Q

IC401

IC504
Q441
IC441

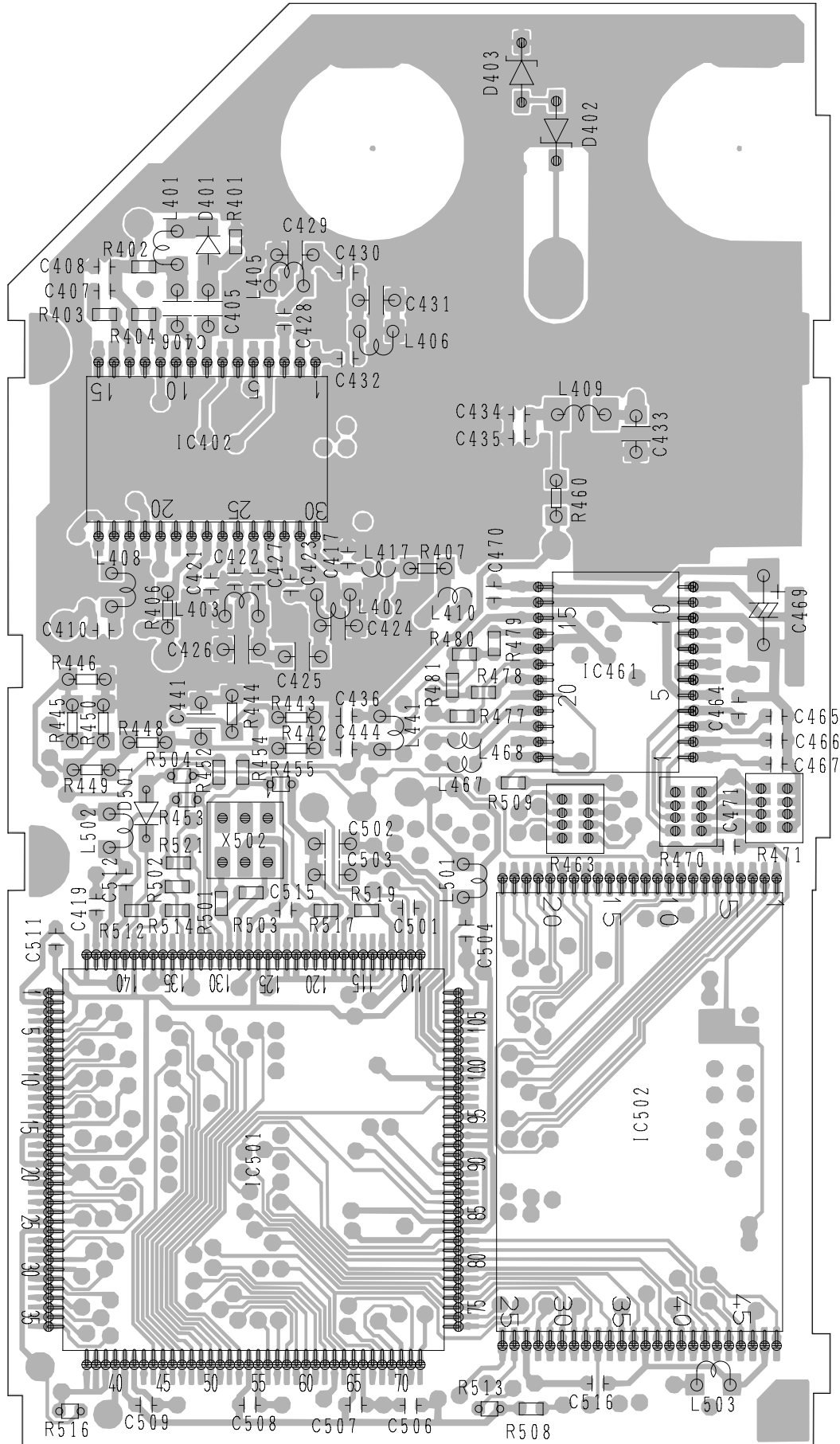
IC532

IC503

L
CN551

CN461

AVIC-N2/XU/UC



IC,Q

IC402

IC461

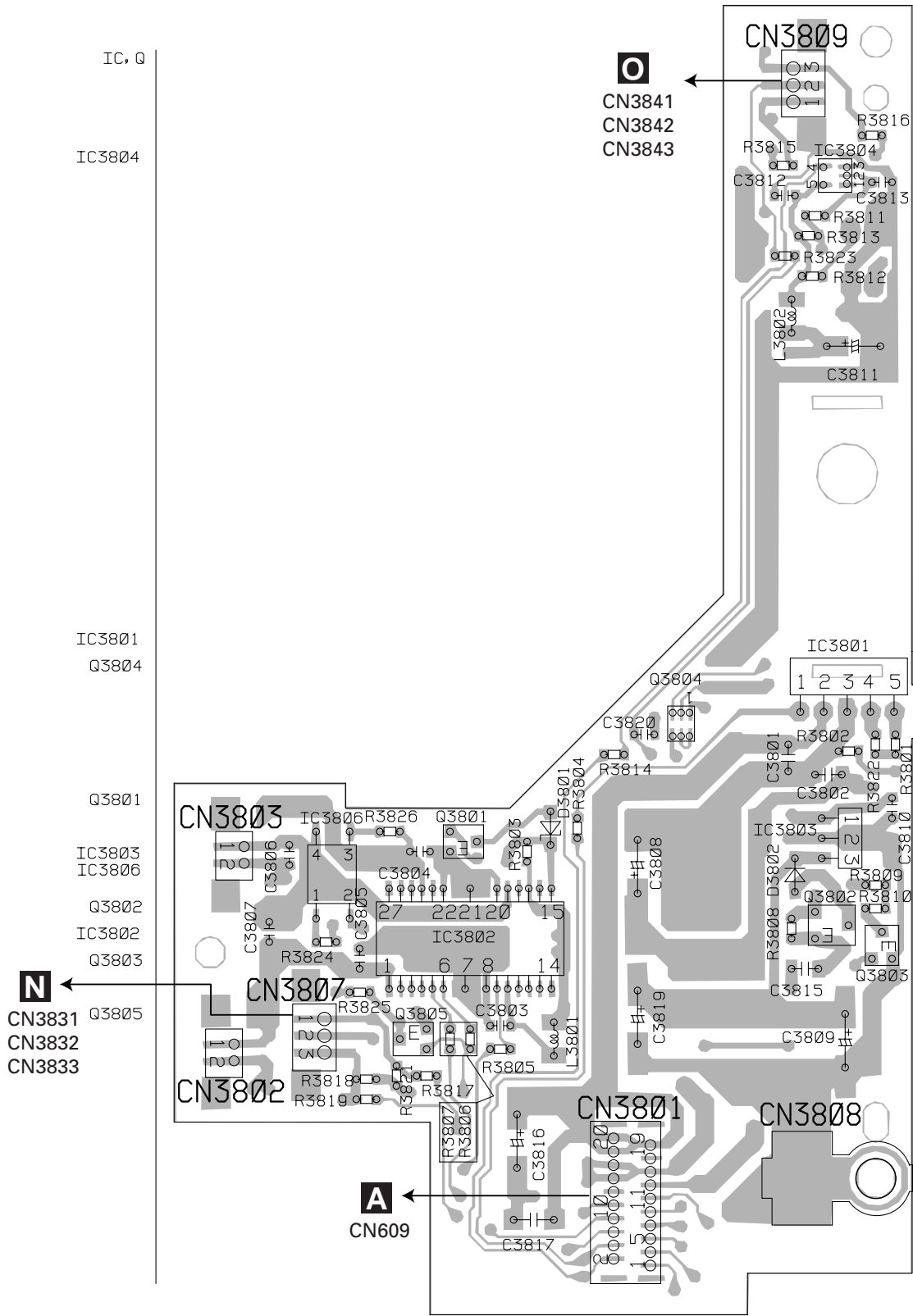
IC502

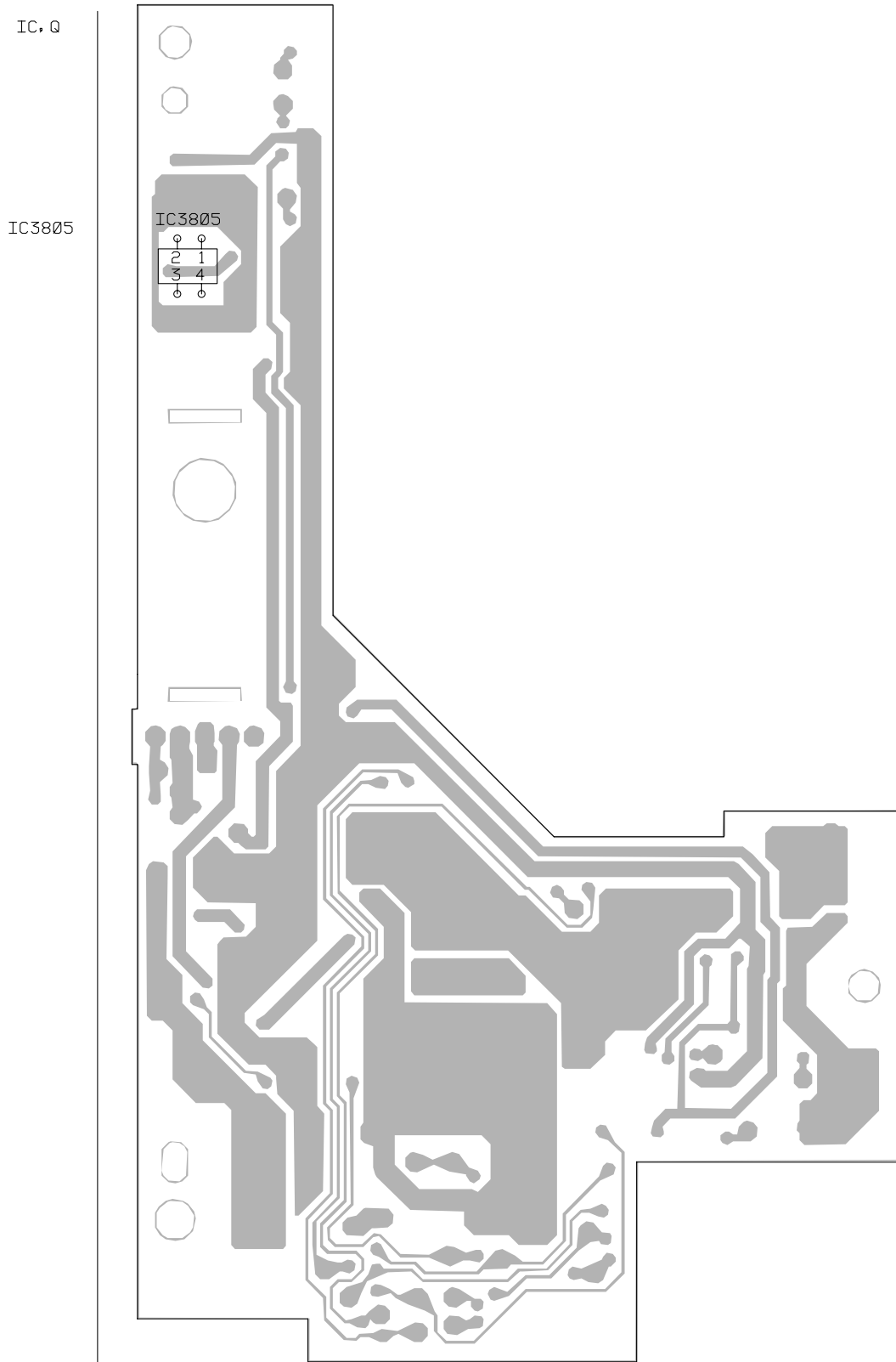
IC501

4.13 MAIN UNIT

M MAIN UNIT

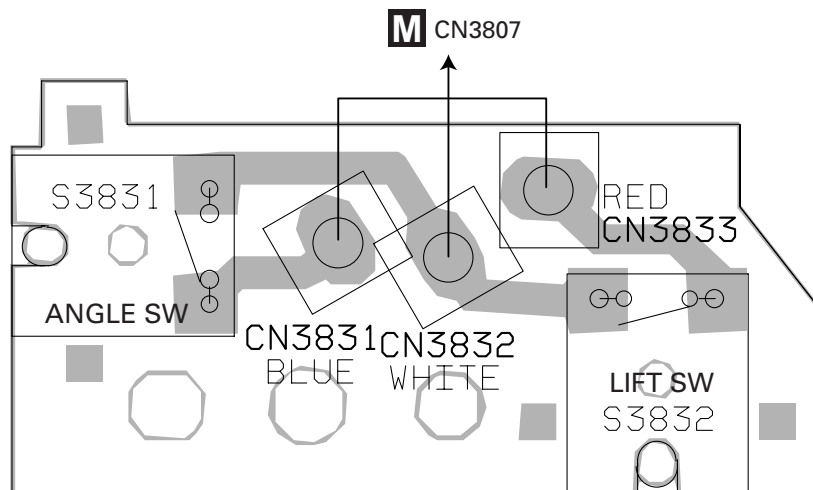
SIDE A



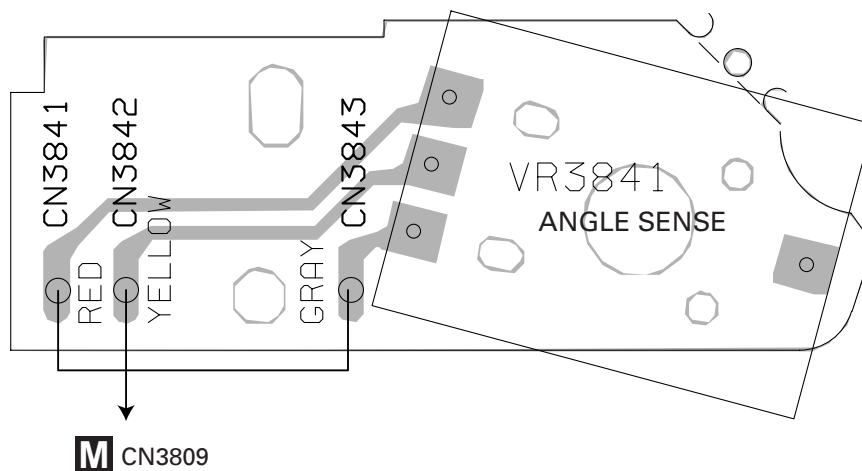
M MAIN UNIT**SIDE B**

4.14 SW UNIT AND VOLUME UNIT

N SW UNIT



O VOLUME UNIT



NO

5. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○○J, RS1/○○S○○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

- The \triangle mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
- Meaning of the figures and others in the parentheses in the parts list.

Example) IC 301 is on the point (face A, 91 of x-axis, and 111 of y-axis) of the corresponding PC board.

IC 301 (A, 91, 111) IC NJM2068V

A

Unit Number: CWM9948(AVIC-N2/XU/UC)
Unit Number: CWM9947(AVIC-X1R/XU/EW)
Unit Name: CC Unit

MISCELLANEOUS

Circuit Symbol and No.		Part No.	Circuit Symbol and No.		Part No.
IC 608	(B,60,94) IC	TC7WT125FU	IC 608	(B,60,94) IC	TC7WT125FU
IC 611	(B,44,104) IC	TC7S04FU	IC 611	(B,44,104) IC	TC7S04FU
IC 612	(B,51,91) IC	S-80840CNMC-B8Z	IC 612	(B,51,91) IC	S-80840CNMC-B8Z
IC 613	(B,48,104) IC	TC7SH00FUS1	IC 613	(B,48,104) IC	TC7SH00FUS1
IC 691	(B,165,143) IC	UPD4721GSS1	IC 691	(B,165,143) IC	UPD4721GSS1
IC 751	(B,98,102) IC	CXA1645M	IC 751	(B,98,102) IC	CXA1645M
IC 752	(B,117,121) IC	NJM2137V	IC 752	(B,117,121) IC	NJM2137V
IC 753	(B,88,117) IC	NJM2235V	IC 753	(B,88,117) IC	NJM2235V
IC 754	(B,79,120) IC	NJM2561F1	IC 754	(B,79,120) IC	NJM2561F1
IC 755	(B,107,116) IC	NJM2561F1	IC 755	(B,107,116) IC	NJM2561F1
IC 756	(B,100,117) IC	NJM2235V	IC 756	(B,100,117) IC	NJM2235V
IC 757	(B,87,98) IC	TC7SET08FUS1	IC 757	(B,87,98) IC	TC7SET08FUS1
IC 758	(B,85,92) IC	TC7SZ08FU	IC 758	(B,85,92) IC	TC7SZ08FU
IC 801	(B,62,83) IC	PQ018EZ01ZP	IC 801	(B,62,83) IC	PQ018EZ01ZP
IC 803	(B,32,58) IC	TPS5102IDBT	IC 803	(B,32,58) IC	TPS5102IDBT
IC 804	(B,67,59) IC	TPS5102IDBT	IC 804	(B,67,59) IC	TPS5102IDBT
IC 805	(B,15,64) IC	TPS5103IDB	IC 805	(B,15,64) IC	TPS5103IDB
IC 806	(A,74,92) IC	S-L2980A33MC-C6S	IC 806	(A,74,92) IC	S-L2980A33MC-C6S
IC 807	(A,63,111) IC	TPD1018F	IC 807	(A,63,111) IC	TPD1018F
IC 808	(B,61,101) IC	S-812C52AUA-C3G	IC 808	(B,61,101) IC	S-812C52AUA-C3G
IC 810	(B,34,85) IC	S-812C56AUA-C3K	IC 810	(B,34,85) IC	S-812C56AUA-C3K
IC 2401	(A,136,107) IC	PML009A	IC 2401	(A,136,107) IC	PML009A
IC 2402	(B,129,109) IC	TC7W66FU	IC 2402	(B,129,109) IC	TC7W66FU
IC 2403	(B,154,86) IC	TDA7052BT	IC 2403	(B,154,86) IC	TDA7052BT
IC 2404	(B,147,109) IC	NJM2058V	IC 2404	(B,147,109) IC	NJM2058V
IC 2405	(A,34,137) IC	PAL007A	IC 2405	(A,34,137) IC	PAL007A
IC 2407	(B,134,130) IC	NJM3403AV	IC 2407	(B,134,130) IC	NJM3403AV
IC 2408	(B,134,118) IC	NJM2107F	IC 2408	(B,134,118) IC	NJM2107F
IC 2551	(A,7,145) IC	TC7WT125FU	IC 2551	(A,7,145) IC	TC7WT125FU
IC 2552	(B,135,109) IC	NJM2068V	IC 2552	(B,135,109) IC	NJM2068V
IC 2553	(B,116,109) IC	NJM2068V	IC 2553	(B,116,109) IC	NJM2068V
IC 2601	(B,165,109) IC	NJM3403AV	IC 2601	(B,165,109) IC	NJM3403AV
IC 2701	(B,42,28) IC	TC7SH08FUS1	IC 2701	(B,42,28) IC	TC7SH08FUS1
IC 2702	(B,38,88) IC	TC7SH14FUS1	IC 2702	(B,38,88) IC	TC7SH14FUS1
Q 201	(A,126,11) Transistor	UMD2N	Q 201	(A,126,11) Transistor	UMD2N
Q 301	(A,151,22) Transistor	DTC114EU	Q 301	(A,151,22) Transistor	DTC114EU
Q 601	(B,152,135) Transistor	2SC4081	Q 601	(B,152,135) Transistor	2SC4081
Q 602	(B,51,85) Transistor	UMD2N	Q 602	(B,51,85) Transistor	UMD2N
Q 621	(B,41,109) Transistor	IMD2A	Q 621	(B,41,109) Transistor	IMD2A
Q 691	(B,162,150) Transistor	2SD1767	Q 691	(B,162,150) Transistor	2SD1767
Q 692	(B,155,149) Transistor	IMD3A	Q 692	(B,155,149) Transistor	IMD3A
IC 1	(B,139,31) IC	K4S561632E-TL75	IC 1	(B,139,31) IC	K4S561632E-TL75
IC 2	(A,142,51) IC	UPD705103GM-180S1	IC 2	(A,142,51) IC	UPD705103GM-180S1
IC 3	(B,156,31) IC	HY57V561620CLT-H	IC 3	(B,156,31) IC	HY57V561620CLT-H
IC 4	(A,158,22) IC	TC7SZ08FU	IC 4	(A,158,22) IC	TC7SZ08FU
IC 5	(B,147,55) IC	PD6336C	IC 5	(B,147,55) IC	PD6336C
IC 101	(A,136,18) IC	TC74LCX08FTS1	IC 101	(A,136,18) IC	TC74LCX08FTS1
IC 102	(A,137,12) IC	TC7SH04FUS1	IC 102	(A,137,12) IC	TC7SH04FUS1
IC 103	(A,135,28) IC	TC74LCX245FTS1	IC 103	(A,135,28) IC	TC74LCX245FTS1
IC 104	(A,144,28) IC	TC74LCX245FTS1	IC 104	(A,144,28) IC	TC74LCX245FTS1
IC 105	(A,152,28) IC	TC74LCX245FTS1	IC 105	(A,152,28) IC	TC74LCX245FTS1
IC 106	(A,161,28) IC	TC74LCX245FTS1	IC 106	(A,161,28) IC	TC74LCX245FTS1
IC 107	(A,163,38) IC	TC74LCX541FTS1	IC 107	(A,163,38) IC	TC74LCX541FTS1
IC 108	(A,163,46) IC	TC74LCX541FTS1	IC 108	(A,163,46) IC	TC74LCX541FTS1
IC 109	(A,163,55) IC	TC74LCX541FTS1	IC 109	(A,163,55) IC	TC74LCX541FTS1
IC 110	(B,119,40) IC (UC)	PEH005A	IC 110	(B,119,40) IC (UC)	PEH005A
	(B,119,40) IC (EW)	PEH003A		(B,119,40) IC (EW)	PEH003A
IC 111	(B,119,24) IC (UC)	PEH006A	IC 111	(B,119,24) IC (UC)	PEH006A
	(B,119,24) IC (EW)	PEH004A		(B,119,24) IC (EW)	PEH004A
IC 112	(B,107,62) IC	TC7SH00FUS1	IC 112	(B,107,62) IC	TC7SH00FUS1
IC 113	(B,119,58) IC	M5M5V216ATP-70HI	IC 113	(B,119,58) IC	M5M5V216ATP-70HI
IC 114	(B,107,59) IC	TC7SH08FUS1	IC 114	(B,107,59) IC	TC7SH08FUS1
IC 201	(A,105,25) IC	MB86291APFVS-G-DL	IC 201	(A,105,25) IC	MB86291APFVS-G-DL
IC 301	(A,145,19) IC	M51957BFP	IC 301	(A,145,19) IC	M51957BFP
IC 302	(A,142,11) IC	TC7SH08FUS1	IC 302	(A,142,11) IC	TC7SH08FUS1
IC 304	(A,110,53) IC	AK4351VT	IC 304	(A,110,53) IC	AK4351VT
IC 305	(A,98,63) IC	AK5381VT	IC 305	(A,98,63) IC	AK5381VT
IC 309	(A,122,49) IC	TC7SH08FUS1	IC 309	(A,122,49) IC	TC7SH08FUS1
IC 601	(A,46,99) IC	PD5937A	IC 601	(A,46,99) IC	PD5937A
IC 602	(B,45,98) IC	TC74VHCT08AFTS1	IC 602	(B,45,98) IC	TC74VHCT08AFTS1
IC 603	(B,53,100) IC	TC7SH08FUS1	IC 603	(B,53,100) IC	TC7SH08FUS1
IC 604	(A,126,88) IC	TC7SH08FUS1	IC 604	(A,126,88) IC	TC7SH08FUS1
IC 605	(A,131,89) IC	TC7SH08FUS1	IC 605	(A,131,89) IC	TC7SH08FUS1

Circuit Symbol and No.**Part No.****Circuit Symbol and No.****Part No.**

Q 704 (B,63,154) Transistor 2SA1576
 Q 731 (B,69,114) Transistor IMD3A
 Q 751 (B,87,103) Transistor 2SC4081

Q 2606 (B,116,96) Transistor UMD2N
 Q 2607 (B,158,98) Transistor DTC323TU
 Q 2608 (B,119,96) Transistor UMD2N

Q 752 (B,78,112) Transistor 2SC4081
 Q 754 (A,77,106) Transistor 2SC4081
 Q 801 (B,30,34) Transistor 2SB1260
 Q 802 (B,25,26) Transistor DTC114EU
 Q 803 (B,43,34) Transistor 2SA1834F5

Q 2610 (B,33,123) Transistor UMD2N
 Q 2611 (B,33,117) Transistor UMD2N
 Q 2701 (B,42,24) Transistor DTC114TU
 Q 2702 (B,35,10) Transistor DTC144EU
 Q 2703 (B,35,17) Transistor 2SA1577

Q 804 (B,55,35) Transistor DTC114EU
 Q 805 (A,122,137) FET RSQ030P03
 Q 806 (A,119,134) Transistor DTC144EU
 Q 807 (A,36,81) Transistor 2SB1260
 Q 808 (B,45,85) Transistor DTC114EU

Q 2704 (B,39,9) Transistor UMH1N
 Q 2705 (B,39,17) Transistor 2SA1577
 Q 2706 (B,35,22) Transistor IMD2A
 Q 2707 (A,36,11) Transistor DTC144EU
 Q 2708 (A,36,18) Transistor 2SA1577

Q 809 (A,89,50) Transistor 2SA1797
 Q 810 (A,92,57) Transistor DTC114EU
 Q 811 (B,13,51) FET RK4936
 Q 814 (B,62,45) Transistor DTC114EU
 Q 815 (B,45,69) FET RK4936

Q 2709 (A,39,11) Transistor (EW) DTC144EU
 Q 2710 (A,39,18) Transistor (EW) 2SA1577
 Q 2711 (A,42,10) Transistor (EW) UMH1N
 Q 2712 (A,42,18) Transistor (EW) 2SA1577
 Q 2713 (B,36,100) Transistor IMD2A

Q 816 (B,80,68) FET RK4936
 Q 819 (B,45,48) FET RK4936
 Q 820 (B,80,49) FET RK4936
 Q 821 (B,85,149) Transistor 2SA1834F5
 Q 822 (B,91,153) Transistor DTC114EU

Q 2714 (A,42,25) Transistor 2SA1576
 Q 2715 (B,35,107) Transistor 2SD1767
 Q 2716 (A,35,25) Transistor DTC124EU
 Q 2717 (B,35,92) Transistor DTC114EU
 D 610 (B,54,89) Diode 1SS355

Q 823 (B,111,136) Transistor 2SC4081
 Q 824 (B,104,134) Transistor 2SB1184F5
 Q 825 (B,114,136) Transistor 2SC4081
 Q 828 (B,65,115) Transistor IMX1
 Q 829 (B,67,106) Transistor 2SB1184F5

D 691 (B,154,152) Diode HZU8R2(B1)
 D 692 (A,172,136) Diode UDZS20(B)
 D 693 (A,172,132) Diode UDZS20(B)
 D 694 (A,167,136) Diode UDZS20(B)
 D 695 (A,167,132) Diode UDZS20(B)

Q 830 (B,30,85) Transistor UMF23N
 Q 832 (A,114,137) FET RSQ030P03
 Q 835 (B,118,139) Transistor 2SC4081
 Q 837 (B,40,118) Transistor 2SC4081
 Q 838 (A,111,134) Transistor DTC144EU

D 696 (A,170,136) Diode UDZS20(B)
 D 697 (A,170,132) Diode UDZS20(B)
 D 698 (A,165,136) Diode UDZS20(B)
 D 699 (A,165,132) Diode UDZS20(B)
 D 700 (A,168,136) Diode UDZS6R8(B)

Q 839 (A,72,109) Transistor UMD2N
 Q 840 (B,68,136) Transistor 2SA1576
 Q 843 (B,66,95) Transistor 2SD1767
 Q 951 (A,75,95) Transistor DTC124EU
 Q 971 (B,18,125) Transistor IMX2

D 707 (B,63,151) Diode DAN202U
 D 708 (A,64,135) Diode 5KP22A
 D 731 (B,144,144) Diode UDZS6R8(B)
 D 732 (A,134,136) Diode UDZS6R8(B)
 D 733 (A,136,136) Diode UDZS6R8(B)

Q 972 (B,18,116) Transistor IMD3A
 Q 973 (B,7,119) Transistor 2SD1767
 Q 2401 (B,125,128) Transistor UMD2N
 Q 2402 (B,128,133) Transistor DTC323TU
 Q 2403 (B,128,128) Transistor DTC323TU

D 734 (A,137,136) Diode UDZS6R8(B)
 D 735 (A,139,136) Diode UDZS6R8(B)
 D 736 (B,151,151) Diode UMZ6R8N
 D 737 (B,149,137) Diode UMZ6R8N
 D 738 (B,145,138) Diode UMZ6R8N

Q 2408 (B,122,106) Transistor UMD2N
 Q 2409 (B,123,110) Transistor DTC323TU
 Q 2410 (B,125,119) Transistor UMD2N
 Q 2414 (B,126,113) Transistor DTC124EU
 Q 2415 (B,126,105) Transistor DTC124EU

D 739 (B,154,142) Diode UMZ6R8N
 D 740 (B,151,142) Diode UMZ6R8N
 D 741 (B,148,151) Diode UMZ6R8N
 D 742 (A,162,142) Diode UDZS6R8(B)
 D 743 (A,162,140) Diode UDZS6R8(B)

Q 2416 (B,139,109) Transistor UMD2N
 Q 2417 (B,139,106) Transistor DTC323TU
 Q 2418 (B,139,112) Transistor DTC323TU
 Q 2419 (B,22,114) Transistor UMD2N
 Q 2420 (B,142,85) Transistor DTC114EU

D 744 (A,162,138) Diode UDZS6R8(B)
 D 745 (B,137,144) Diode UDZS6R8(B)
 D 746 (B,138,141) Diode UDZS6R8(B)
 D 747 (B,142,141) Diode UDZS6R8(B)
 D 748 (B,142,144) Diode UDZS6R8(B)

Q 2421 (B,33,114) Transistor UMD2N
 Q 2422 (B,27,112) Transistor 2SC4081
 Q 2427 (B,25,123) Transistor DTC124EU
 Q 2428 (B,28,126) Transistor DTC124EU
 Q 2603 (B,113,96) Transistor UMD2N

D 749 (A,141,136) Diode UDZS6R8(B)
 D 750 (A,143,137) Diode UDZS10(B)
 D 753 (B,150,146) Diode UDZS6R8(B)
 D 754 (B,145,141) Diode UDZS6R8(B)
 D 802 (B,39,57) Diode RB400D

Q 2604 (B,164,98) Transistor DTC323TU
 Q 2605 (B,161,98) Transistor DTC323TU

D 803 (B,39,61) Diode RB400D
 D 804 (B,74,57) Diode RB400D

Circuit Symbol and No.			Part No.	Circuit Symbol and No.			Part No.
D 805	(B,74,61) Diode		RB400D	L 103	(A,140,28) Inductor		CTF1557
D 806	(B,9,59) Diode		RB400D	L 104	(A,148,27) Inductor		CTF1557
D 807	(A,41,56) Diode		RB060L-40	L 105	(A,156,27) Inductor		CTF1557
D 808	(A,41,60) Diode		RB060L-40	L 106	(A,165,27) Inductor		CTF1557
D 809	(A,75,55) Diode		RB060L-40	L 107	(A,163,34) Inductor		CTF1557
D 810	(A,75,60) Diode		RB060L-40	L 108	(A,163,42) Inductor		CTF1557
D 812	(B,39,113) Diode		HZU6R8(B2)	L 109	(A,163,51) Inductor		CTF1557
D 814	(A,104,138) Diode		KS926S2	L 110	(B,106,38) Inductor		CTF1556
D 815	(B,100,128) Diode		HZU7R5(B3)	L 111	(B,106,23) Inductor		CTF1556
D 816	(B,61,118) Diode		UDZS18(B)	L 112	(B,108,55) Inductor		CTF1556
D 817	(B,71,93) Diode		UDZS20(B)	L 113	(B,109,60) Inductor		CTF1557
D 818	(A,20,51) Diode		RB060L-40	L 114	(B,109,55) Inductor		CTF1557
D 820	(B,61,131) Diode		S1G-6904G2P	L 201	(A,127,29) Inductor		CTF1556
D 821	(B,64,137) Diode		1SS355	L 203	(A,86,10) Inductor		CTF1556
D 822	(B,64,133) Diode		1SS355	L 204	(A,105,45) Inductor		CTF1488
D 828	(B,51,133) Diode		S1G-6904G2P	L 205	(A,124,21) Inductor		CTF1556
D 830	(B,96,138) Diode		RB500V-40	L 206	(A,89,45) Inductor		CTF1556
D 831	(B,96,136) Diode		RB500V-40	L 207	(A,95,43) Inductor		CTF1379
D 832	(A,8,68) Diode		S1G-6904G2P	L 301	(A,141,19) Inductor		CTF1557
D 833	(B,57,150) Diode		1SS400	L 302	(A,145,13) Inductor		CTF1557
D 971	(B,13,119) Diode		RB751V40	L 305	(A,103,54) Inductor		CTF1556
D 972	(B,13,121) Diode		RB751V40	L 306	(A,90,61) Inductor		CTF1556
D 973	(B,14,117) Diode		HZU8R2(B1)	L 307	(A,90,65) Inductor		CTF1556
D 974	(B,12,122) Diode		UDZ12(B)	L 308	(A,110,59) Inductor		CTF1334
D 2404	(B,110,97) Diode		DAN202U	L 312	(A,121,52) Inductor		CTF1410
D 2405	(B,128,130) Diode		DAP202U	L 601	(B,53,97) Inductor		CTF1334
D 2406	(A,134,122) Diode		1SS355	L 602	(B,44,90) Inductor		CTF1334
D 2407	(A,134,129) Diode		UDZS4R7(B)	L 603	(B,44,93) Inductor		CTF1334
D 2408	(B,142,109) Diode		DAP202U	L 604	(A,44,88) Inductor		CTF1334
D 2409	(B,23,111) Diode		UDZS8R2(B)	L 605	(B,158,135) Inductor		CTF1334
D 2410	(B,24,120) Diode		DAN202U	L 606	(A,126,91) Inductor		CTF1334
D 2411	(B,27,119) Diode		DAN202U	L 607	(A,131,86) Inductor		CTF1334
D 2412	(B,34,120) Diode		DAN202U	L 610	(B,56,94) Inductor		CTF1334
D 2413	(B,29,122) Diode		DAN202U	L 613	(B,44,106) Inductor		CTF1334
D 2551	(A,13,146) Diode		UDZS6R8(B)	L 616	(B,48,106) Inductor		CTF1334
D 2701	(B,37,27) Diode		1SS355	L 617	(B,50,87) Inductor		CTF1334
D 2702	(B,63,8) Diode Network		DA204U	L 619	(A,129,84) Inductor		CTF1306
D 2703	(B,51,28) Diode Network		DA204U	L 620	(A,128,81) Inductor		CTF1306
D 2704	(B,48,14) Diode		UDZS5R6(B)	L 621	(A,129,81) Inductor		CTF1306
D 2705	(A,50,21) Diode Network		DA204U	L 622	(A,127,84) Inductor		CTF1384
D 2706	(A,50,10) Diode Network		DA204U	L 623	(A,127,81) Inductor		CTF1387
D 2707	(A,50,13) Diode Network		DA204U	L 624	(A,125,84) Inductor		CTF1334
D 2708	(A,50,15) Diode Network		DA204U	L 625	(A,98,83) Inductor		CTF1306
D 2709	(B,51,23) Diode Network		DA204U	L 626	(A,96,83) Inductor		CTF1306
D 2710	(B,51,25) Diode Network		DA204U	L 627	(A,128,84) Inductor		CTF1306
D 2711	(A,50,18) Diode Network		DA204U	L 628	(A,124,84) Inductor		CTF1306
D 2712	(B,35,97) Diode		HZU8R2(B1)	L 629	(A,125,81) Inductor		CTF1306
D 2713	(B,35,95) Diode		HZU5R6(B2)	L 630	(A,131,84) Inductor		CTF1306
D 2714	(B,45,21) Diode		DAP202U	L 631	(A,122,81) Inductor		CTF1334
D 2715	(B,38,22) Diode		DAP202U	L 632	(A,121,84) Inductor		CTF1334
D 2821	(A,163,135) Diode		RB500V-40	L 633	(A,121,81) Inductor		CTF1334
L 1	(B,132,17) Inductor		CTF1558	L 634	(A,120,84) Inductor		CTF1334
L 2	(B,147,18) Inductor		CTF1558	L 635	(A,122,84) Inductor		CTF1306
L 3	(A,158,17) Inductor		CTF1410	L 636	(A,105,87) Inductor		CTF1334
L 5	(A,139,33) Inductor		CTF1556	L 637	(A,120,81) Inductor		CTF1306
L 6	(A,128,35) Inductor		CTF1295	L 638	(A,118,84) Inductor		CTF1306
L 7	(B,162,55) Inductor		CTF1558	L 639	(A,118,81) Inductor		CTF1306
L 8	(A,149,68) Inductor		CTF1556	L 640	(A,117,84) Inductor		CTF1306
L 101	(A,132,16) Inductor		CTF1557	L 641	(A,124,81) Inductor		CTF1306
L 102	(A,134,12) Inductor		CTF1557	L 644	(A,115,84) Inductor		CTF1306

Circuit Symbol and No.**Part No.**

L 645 (A,115,81) Inductor CTF1306
 L 646 (A,114,84) Inductor CTF1334
 L 647 (A,114,81) Inductor CTF1334

L 648 (A,112,81) Inductor CTF1378
 L 649 (A,110,81) Inductor CTF1378
 L 650 (A,109,81) Inductor CTF1378
 L 651 (A,105,81) Inductor CTF1378
 L 652 (A,103,84) Inductor CTF1334

L 653 (A,103,81) Inductor CTF1467
 L 654 (A,102,84) Inductor CTF1306
 L 660 (A,25,83) Inductor CTF1463
 L 661 (A,26,85) Inductor CTF1386
 L 662 (A,26,87) Inductor CTF1306

L 663 (A,26,89) Inductor CTF1306
 L 665 (B,18,90) Inductor CTF1306
 L 667 (B,15,90) Inductor CTF1467
 L 668 (B,18,91) Inductor CTF1334
 L 669 (B,15,92) Inductor CTF1306

L 670 (B,18,93) Inductor CTF1306
 L 671 (A,26,90) Inductor CTF1306
 L 672 (B,15,94) Inductor CTF1306
 L 673 (A,26,92) Inductor CTF1306
 L 674 (B,18,95) Inductor CTF1306

L 675 (A,26,94) Inductor CTF1463
 L 676 (B,16,98) Inductor CTF1463
 L 677 (B,27,96) Inductor CTF1463
 L 678 (B,18,104) Inductor CTF1463
 L 679 (A,27,107) Inductor CTF1453

L 680 (B,28,101) Inductor CTF1463
 L 681 (A,42,114) Inductor CTF1306
 L 682 (A,40,114) Inductor CTF1357
 L 683 (A,40,121) Inductor CTF1357
 L 684 (A,39,114) Inductor CTF1357

L 685 (A,37,114) Inductor CTF1357
 L 686 (A,73,114) Inductor CTF1306
 L 687 (A,82,117) Inductor CTF1306
 L 688 (A,34,114) Inductor CTF1357
 L 689 (A,34,122) Inductor CTF1306

L 690 (A,33,114) Inductor CTF1334
 L 691 (A,33,122) Inductor CTF1334
 L 692 (A,80,122) Inductor CTF1306
 L 693 (A,31,114) Inductor CTF1384
 L 694 (A,78,122) Inductor CTF1306

L 695 (A,30,121) Inductor CTF1463
 L 696 (A,77,122) Inductor CTF1306
 L 697 (A,78,114) Inductor CTF1306
 L 698 (A,29,109) Inductor CTF1629
 L 699 (A,66,115) Inductor CTF1334

L 700 (A,56,122) Inductor CTF1306
 L 701 (A,18,110) Inductor CTF1629
 L 702 (B,61,149) Inductor LCYC2R2K1608
 L 703 (A,57,114) Inductor CTF1306
 L 704 (A,55,122) Inductor CTF1306

L 705 (A,55,114) Inductor CTF1306
 L 706 (A,53,122) Inductor CTF1306
 L 707 (A,54,114) Inductor CTF1306
 L 708 (A,52,122) Inductor CTF1306
 L 709 (A,52,114) Inductor CTF1306

L 710 (A,51,114) Inductor CTF1306
 L 711 (A,49,114) Inductor CTF1306

Circuit Symbol and No.**Part No.**

L 712 (A,46,121) Inductor CTF1629
 L 713 (A,76,114) Inductor CTF1306
 L 714 (A,74,114) Inductor CTF1306

L 715 (A,73,122) Inductor CTF1306
 L 716 (A,70,113) Inductor CTF1306
 L 717 (A,72,114) Inductor CTF1306
 L 718 (B,158,146) Inductor CTF1410
 L 719 (B,170,150) Inductor CTF1334

L 721 (A,36,114) Inductor CTF1306
 L 722 (A,36,122) Inductor CTF1306
 L 723 (A,22,112) Inductor CTF1306
 L 724 (A,24,112) Inductor CTF1306
 L 725 (A,25,112) Inductor CTF1306

L 726 (A,37,122) Inductor CTF1306
 L 727 (A,25,121) Inductor CTF1306
 L 732 (A,158,139) Inductor CTF1295
 L 733 (A,157,141) Inductor CTF1295
 L 734 (A,157,143) Inductor CTF1295

L 735 (B,145,148) Inductor CTF1295
 L 736 (B,143,148) Inductor CTF1295
 L 737 (B,141,144) Inductor CTF1295
 L 738 (B,139,144) Inductor CTF1295
 L 739 (B,138,148) Inductor CTF1295

L 740 (B,136,148) Inductor CTF1410
 L 741 (A,145,140) Inductor CTF1295
 L 742 (A,142,140) Inductor CTF1295
 L 744 (A,117,81) Inductor CTF1334
 L 745 (A,152,141) Inductor CTF1334

L 746 (A,153,141) Inductor CTF1334
 L 748 (A,148,141) Inductor CTF1334
 L 749 (A,150,141) Inductor CTF1334
 L 751 (B,85,106) Inductor CTF1334
 L 753 (B,95,111) Inductor LCTAW680J3225

L 754 (B,91,94) Inductor CTF1334
 L 755 (A,102,122) Inductor CTF1334
 L 756 (B,18,86) Inductor CTF1306
 L 757 (B,15,87) Inductor CTF1306
 L 758 (B,18,88) Inductor CTF1306

L 759 (A,111,121) Inductor CTF1334
 L 760 (B,84,88) Inductor CTF1334
 L 761 (B,95,119) Inductor LCYC2R2K1608
 L 762 (B,110,116) Inductor LCYC2R2K1608
 L 763 (B,92,115) Inductor LCYC2R2K1608

L 764 (B,77,120) Inductor LCYC2R2K1608
 L 765 (A,80,106) Inductor LCYC2R2K1608
 L 766 (B,114,116) Inductor LCYC2R2K1608
 L 767 (A,32,106) Inductor CTF1334
 L 768 (A,30,106) Inductor CTF1334

L 771 (A,131,136) Inductor CTF1453
 L 772 (A,128,136) Inductor CTF1453
 L 793 (A,131,81) Inductor CTF1334
 L 794 (A,102,81) Inductor CTF1306
 L 795 (A,100,84) Inductor CTF1306

L 796 (A,100,81) Inductor CTF1306
 L 801 (A,12,54) Inductor CTH1254
 L 802 (A,16,68) Inductor CTH1257
 L 803 (A,41,49) Inductor CTH1254
 L 804 (A,41,68) Inductor CTH1255

L 805 (A,75,48) Inductor CTH1257
 L 806 (A,77,68) Inductor CTH1257

<u>Circuit Symbol and No.</u>		<u>Part No.</u>
L 807	(A,89,147) Inductor	CTH1262
L 808	(A,28,65) Inductor	CTH1253
L 809	(A,63,65) Inductor	CTH1253
L 810	(A,90,136) Choke Coil 100μH	CTH1315
L 811	(B,58,134) Inductor	CTF1556
L 812	(A,65,73) Inductor	CTF1453
L 815	(B,61,136) Inductor	CTF1556
L 816	(B,31,26) Inductor	CTF1306
L 817	(A,40,80) Inductor	LCKBW1R0M2520
L 818	(A,29,83) Inductor	LCYA220J2520
L 981	(B,73,81) Inductor	CTF1453
L 982	(B,74,32) Inductor	CTF1463
L 983	(B,63,33) Inductor	CTF1463
L 984	(A,93,79) Inductor	CTF1463
L 985	(A,93,86) Inductor	CTF1463
L 2402	(B,116,91) Inductor	CTF1306
L 2404	(A,148,105) Inductor	LCYA2R2J2520
L 2551	(A,12,143) Inductor	CTF1379
L 2554	(B,35,115) Inductor	CTF1334
L 2555	(B,35,111) Inductor	CTF1334
L 2601	(B,160,104) Inductor	CTF1334
L 2701	(B,48,16) Inductor	CTF1399
L 2702	(B,39,28) Inductor	CTF1334
L 2703	(B,42,88) Inductor	CTF1334
L 2704	(B,54,11) Inductor	CTF1306
L 2705	(B,56,11) Inductor	CTF1306
L 2706	(B,57,11) Inductor	CTF1306
L 2707	(B,55,18) Inductor	CTF1306
L 2708	(B,60,27) Inductor	CTF1306
L 2709	(B,55,23) Inductor	CTF1306
L 2710	(B,55,27) Inductor	CTF1306
L 2711	(B,51,30) Inductor	CTF1306
L 2712	(B,33,15) Inductor	CTF1334
L 2713	(B,37,17) Inductor	CTF1334
L 2714	(A,43,22) Inductor	CTF1334
L 2715	(A,39,22) Inductor (EW)	CTF1334
L 2716	(B,51,20) Inductor	CTF1334
L 2717	(B,58,7) Inductor	CTF1306
L 2800	(B,160,133) Inductor	CTF1305
TH601	(A,138,88) Thermistor	CCX1056
X 1	(A,143,72) Radiator 30.000MHz	CSS1633
X 2	(B,135,61) Radiator 33.000MHz	CSS1634
X 3	(B,161,49) Radiator 33.8688MHz	CSS1551
X 202	(A,127,22) Radiator 14.31818MHz	CSS1632
X 601	(A,47,88) Radiator 10.0MHz	CSS1577
VR751	(A,79,111) Semi-fixed 1kΩ(OB)	CCP1390
△FU691	(B,167,151) Fuse 2.5A	CEK1285
△FU692	(B,160,140) Fuse 2A	CEK1284
△FU801	(A,59,120) Fuse 1.25A	CEK1255
△FU802	(A,9,63) Fuse 4A	CEK1288
△FU803	(B,109,137) Fuse 375mA	CEK1277
△FU804	(A,24,72) Fuse 2.5A	CEK1285
△FU805	(A,62,72) Fuse 2.5A	CEK1285
△FU806	(A,63,117) Fuse 1A	CEK1254
△FU807	(A,40,83) Fuse 1A	CEK1280
△FU808	(B,46,120) Fuse 4A	CEK1260
△FU809	(A,125,136) Fuse 2A	CEK1284
△FU810	(A,97,132) Fuse 500mA	CEK1278
△FU811	(A,86,73) Fuse 2A	CEK1284
△FU812	(A,117,139) Fuse 250mA	CEK1276

<u>Circuit Symbol and No.</u>		<u>Part No.</u>
△FU813	(A,83,47) Fuse 2.5A	CEK1285
△FU814	(B,61,106) Fuse 250mA	CEK1276
△FU815	(A,136,133) Fuse 1A	CEK1280
△FU971	(A,15,119) Fuse 375mA	CEK1277
△FU2701	(B,31,106) Fuse 250mA	CEK1276
EF731	(B,151,148) EMI Filter	CCG1082
EF732	(B,148,148) EMI Filter	CCG1082
EF733	(B,142,137) EMI Filter	CCG1067
EF734	(B,142,134) EMI Filter	CCG1067
EF735	(B,151,138) EMI Filter	CCG1067
EF736	(B,153,138) EMI Filter	CCG1067
EF801	(A,96,137) EMI Filter	CCG1172
EF802	(A,78,144) EMI Filter	CCG1172
EF803	(A,80,153) EMI Filter	CCG1172

RESISTORS

R 1	(B,131,34)	RS1/16S0R0J
R 3	(B,131,37)	RS1/16S0R0J
R 5	(A,115,59)	RS1/16S473J
R 6	(A,121,63)	RS1/16S473J
R 7	(A,157,48)	RS1/16S220J
R 8	(A,120,70)	RS1/16S473J
R 10	(A,153,70)	RS1/16S104J
R 11	(A,155,70)	RAB4C473J
R 12	(A,145,67)	RS1/16S105J
R 13	(A,143,67)	RS1/16S151J
R 14	(B,147,34)	RS1/16S0R0J
R 16	(B,147,37)	RS1/16S0R0J
R 19	(A,121,68)	RS1/16S473J
R 20	(A,135,69)	RS1/16S101J
R 21	(A,139,67)	RS1/16S101J
R 22	(A,137,69)	RS1/16S101J
R 23	(B,137,60)	RS1/16S105J
R 24	(B,137,62)	RS1/16S151J
R 25	(A,134,69)	RS1/16S101J
R 26	(A,138,69)	RS1/16S101J
R 27	(A,135,67)	RS1/16S101J
R 28	(A,137,67)	RS1/16S101J
R 29	(A,134,67)	RS1/16S101J
R 30	(A,132,67)	RS1/16S101J
R 31	(A,133,69)	RS1/16S101J
R 32	(B,137,53)	RS1/16S473J
R 33	(A,131,69)	RS1/16S473J
R 34	(B,158,50)	RS1/16S223J
R 35	(A,127,49)	RS1/16S104J
R 36	(A,126,59)	RS1/16S101J
R 37	(A,126,61)	RS1/16S101J
R 38	(A,126,62)	RS1/16S101J
R 39	(A,126,63)	RS1/16S101J
R 40	(A,126,46)	RS1/16S470J
R 45	(B,130,56)	RS1/16S104J
R 46	(B,131,62)	RS1/16S104J
R 47	(B,161,47)	RS1/16S104J
R 48	(B,159,65)	RS1/16S104J
R 49	(B,161,65)	RS1/16S104J
R 50	(B,162,65)	RS1/16S104J
R 51	(B,84,25)	RS1/16SS101J
R 52	(B,84,26)	RS1/16SS101J
R 53	(B,84,27)	RS1/16SS101J

Circuit Symbol and No.**Part No.****Circuit Symbol and No.****Part No.**

R 54 (B,84,28)
R 55 (B,84,30)

RS1/16SS101J
RS1/16SS101J

R 169 (A,125,64)
R 170 (A,111,66)

RS1/16S473J
RS1/16S473J

R 57 (B,84,29)
R 59 (B,83,31)
R 60 (B,84,32)
R 61 (A,60,36)
R 62 (B,84,34)

RS1/16SS101J
RS1/16SS101J
RS1/16SS101J
RS1/16SS0R0J
RS1/16SS101J

R 171 (A,114,66)
R 172 (A,112,66)
R 174 (A,126,67)
R 175 (A,126,68)
R 176 (A,126,57)

RS1/16S473J
RS1/16S473J
RS1/16S473J
RS1/16S473J
RS1/16S0R0J

R 63 (B,84,33)
R 64 (B,86,38)
R 65 (B,84,36)
R 66 (A,60,41)
R 67 (A,61,41)

RS1/16SS101J
RS1/16SS101J
RS1/16SS101J
RS1/16SS101J
RS1/16SS101J

R 177 (A,121,66)
R 178 (A,121,67)
R 179 (A,115,63)
R 180 (A,149,66)
R 181 (A,119,56)

RS1/16S473J
RS1/16S473J
RS1/16S473J
RS1/16S101J
RS1/16S473J

R 68 (A,62,41)
R 69 (A,63,41)
R 70 (A,64,41)
R 71 (A,65,41)
R 72 (A,66,41)

RS1/16SS101J
RS1/16SS101J
RS1/16SS101J
RS1/16SS101J
RS1/16SS101J

R 182 (A,121,56)
R 183 (A,119,63)
R 184 (A,119,59)
R 185 (A,116,63)
R 186 (A,118,59)

RS1/16S473J
RS1/16S473J
RS1/16S473J
RS1/16S473J
RS1/16S473J

R 73 (A,67,41)
R 74 (A,68,41)
R 75 (A,69,41)
R 76 (A,70,41)
R 77 (A,71,41)

RS1/16SS101J
RS1/16SS101J
RS1/16SS101J
RS1/16SS101J
RS1/16SS101J

R 187 (A,116,59)
R 188 (A,111,69)
R 189 (A,112,69)
R 190 (A,114,69)
R 191 (B,130,65)

RS1/16S473J
RS1/16S473J
RS1/16S473J
RS1/16S473J
RS1/16S473J

R 78 (A,72,41)
R 79 (A,73,41)
R 80 (A,74,41)
R 81 (A,75,41)
R 82 (A,76,41)

RS1/16SS101J
RS1/16SS101J
RS1/16SS101J
RS1/16SS101J
RS1/16SS101J

R 192 (A,118,63)
R 193 (A,128,66)
R 194 (A,150,68)
R 196 (A,116,69)
R 201 (A,124,41)

RS1/16S473J
RS1/16S473J
RS1/16S390J
RS1/16S473J
RN1/16SE1502D

R 84 (B,84,37)
R 85 (B,85,31)
R 87 (B,160,63)
R 88 (B,132,49)
R 89 (B,137,46)

RS1/16SS562J
RS1/16SS103J
RS1/16S104J
RS1/16S104J
RS1/16S0R0J

R 202 (A,124,40)
R 210 (A,103,43)
R 211 (A,102,43)
R 212 (A,94,43)
R 213 (A,93,43)

RN1/16SE1202D
RS1/16S104J
RS1/16S104J
RS1/16S104J
RS1/16S104J

R 90 (B,137,45)
R 93 (B,135,44)
R 94 (B,138,44)
R 95 (B,134,49)
R 96 (B,134,48)

RS1/16S0R0J
RS1/16S153J
RS1/16S153J
RS1/16S153J
RS1/16S153J

R 217 (A,125,36)
R 220 (A,126,9)
R 221 (A,126,26)
R 222 (A,126,17)
R 224 (A,84,16)

RS1/16S272J
RS1/16S223J
RS1/16S105J
RS1/16S151J
RS1/16S0R0J

R 97 (A,123,56)
R 98 (A,159,61)
R 101 (B,107,36)
R 102 (B,107,21)
R 103 (B,105,59)

RS1/16S473J
RS1/16S473J
RS1/16S473J
RS1/16S473J
RS1/16S473J

R 225 (A,122,9)
R 226 (A,123,9)
R 227 (A,84,19)
R 228 (A,85,19)
R 229 (B,119,17)

RS1/16S104J
RS1/16S104J
RS1/16S104J
RS1/16S104J
RS1/16S560J

R 104 (A,136,23)
R 151 (B,131,33)
R 152 (B,163,35)
R 153 (B,146,44)
R 154 (A,120,56)

RS1/16S220J
RS1/16S0R0J
RS1/16S0R0J
RS1/16S471J
RS1/16S473J

R 230 (A,85,14)
R 232 (A,86,14)
R 237 (B,117,17)
R 238 (B,118,17)
R 240 (A,119,8)

RS1/16S104J
RS1/16S104J
RS1/16S104J
RS1/16S330J
RS1/16S104J

R 155 (A,118,56)
R 156 (A,110,66)
R 157 (A,115,66)
R 158 (A,122,52)
R 159 (B,130,57)

RS1/16S473J
RS1/16S473J
RS1/16S473J
RS1/16S473J
RS1/16S473J

R 301 (A,140,19)
R 302 (A,140,22)
R 303 (A,141,17)
R 320 (A,111,57)
R 329 (A,114,54)

RS1/16S123J
RS1/16S103J
RS1/16S473J
RS1/16S103J
RS1/16SS821J

R 160 (A,124,61)
R 161 (A,110,69)
R 162 (B,136,57)
R 163 (A,126,58)
R 164 (A,116,66)

RS1/16S473J
RS1/16S103J
RS1/16S473J
RS1/16S560J
RS1/16S473J

R 330 (A,115,50)
R 331 (A,115,52)
R 332 (A,115,51)
R 333 (A,103,61)
R 334 (A,103,59)

RS1/16SS221J
RS1/16SS221J
RS1/16SS472J
RS1/16SS222J
RS1/16SS222J

R 165 (A,126,70)
R 166 (A,108,69)
R 167 (A,121,64)

RS1/16S473J
RS1/16S473J
RS1/16S473J

R 335 (A,102,59)
R 336 (A,101,59)
R 349 (B,161,44)

RS1/16SS221J
RS1/16SS221J
RS1/16S473J

<u>Circuit Symbol and No.</u>		<u>Part No.</u>	<u>Circuit Symbol and No.</u>		<u>Part No.</u>
R 350	(B,152,43)	RS1/16S473J	R 661	(A,43,88)	RS1/16SS681J
R 356	(A,114,56)	RS1/16S0R0J	R 662	(A,42,88)	RS1/16SS681J
R 360	(B,101,61)	RS1/16SS473J	R 663	(A,41,88)	RS1/16SS681J
R 361	(B,101,48)	RS1/16SS473J	R 664	(B,39,103)	RS1/16SS681J
R 362	(B,101,60)	RS1/16SS473J	R 665	(A,38,110)	RAB4C681J
R 363	(B,101,49)	RS1/16SS473J	R 666	(A,42,110)	RAB4C681J
R 364	(B,101,52)	RS1/16SS473J	R 667	(A,45,109)	RS1/16SS681J
R 365	(B,101,51)	RS1/16SS473J	R 668	(A,24,127)	RS1/16S104J
R 366	(B,101,50)	RS1/16SS473J	R 670	(B,41,105)	RS1/16SS103J
R 367	(B,103,49)	RS1/16SS473J	R 671	(B,41,103)	RS1/16SS103J
R 368	(B,103,51)	RS1/16SS473J	R 672	(A,35,110)	RS1/16SS681J
R 369	(B,101,59)	RS1/16SS473J	R 673	(B,41,104)	RS1/16SS102J
R 370	(A,93,72)	RS1/8S0R0J	R 674	(B,41,102)	RS1/16SS102J
R 601	(A,138,87)	RS1/16S1803D	R 675	(A,34,99)	RS1/16SS681J
R 602	(B,51,100)	RS1/16SS473J	R 676	(A,37,91)	RS1/16SS681J
R 603	(A,131,91)	RS1/16SS473J	R 687	(A,51,122)	RS1/16S470J
R 604	(A,34,94)	RS1/16SS0R0J	R 691	(B,157,149)	RS1/16S471J
R 606	(A,38,88)	RAB4C681J	R 692	(B,159,149)	RS1/16S471J
R 607	(A,126,86)	RS1/16SS473J	R 693	(A,171,139)	RS1/16S681J
R 608	(B,156,135)	RS1/16S563J	R 694	(A,167,139)	RS1/16S681J
R 609	(B,155,133)	RS1/16S104J	R 695	(A,170,139)	RS1/16S681J
R 610	(B,152,132)	RS1/16S473J	R 696	(A,165,139)	RS1/16S681J
R 611	(B,155,135)	RS1/16S472J	R 697	(A,168,139)	RS1/16S681J
R 614	(A,34,103) (UC)	RS1/16SS473J	R 711	(B,63,156)	RS1/16S102J
R 615	(A,34,102) (EW)	RS1/16SS473J	R 712	(B,66,152)	RS1/16S472J
R 616	(A,46,109)	RS1/16SS681J	R 715	(B,64,149)	RS1/16S472J
R 617	(A,41,86)	RS1/16S0R0J	R 716	(B,60,150)	RS1/16S153J
R 618	(B,40,100)	RS1/16SS473J	R 730	(B,74,102)	RS1/16S0R0J
R 620	(B,49,97)	RS1/16SS473J	R 732	(B,146,144)	RS1/16S102J
R 622	(A,46,113)	RS1/16SS473J	R 733	(B,147,145)	RS1/16S102J
R 623	(A,48,110)	RAB4C681J	R 734	(A,140,140)	RS1/16S102J
R 625	(A,35,106)	RS1/16S473J	R 735	(A,138,140)	RS1/16S102J
R 626	(A,52,110)	RAB4C681J	R 736	(A,137,140)	RS1/16S0R0J
R 627	(A,60,95)	RS1/16SS473J	R 737	(A,135,140)	RS1/16S102J
R 628	(A,35,100)	RS1/16SS473J	R 738	(B,141,148)	RS1/16S681J
R 629	(A,58,95)	RS1/16SS473J	R 739	(B,140,148)	RS1/16S681J
R 631	(A,132,84)	RS1/16S681J	R 751	(B,102,93)	RS1/16SS101J
R 632	(A,37,107)	RS1/16SS473J	R 752	(B,104,94)	RS1/16SS101J
R 633	(A,57,90)	RS1/16SS473J	R 753	(B,106,96)	RS1/16SS101J
R 634	(B,54,112)	RS1/16S473J	R 754	(B,97,95)	RS1/16S222J
R 636	(B,56,110)	RS1/16S473J	R 755	(B,90,96)	RS1/16S222J
R 637	(B,12,89)	RS1/16S473J	R 756	(B,85,97)	RS1/16S103J
R 640	(B,52,87)	RS1/16SS101J	R 757	(B,87,101)	RS1/16S272J
R 641	(B,52,88)	RS1/16SS473J	R 758	(B,83,100)	RS1/16S272J
R 642	(A,55,106)	RS1/16SS681J	R 759	(B,85,101)	RS1/16S0R0J
R 643	(A,57,99)	RS1/16SS681J	R 760	(B,81,103)	RS1/16S301J
R 644	(B,49,99)	RS1/16SS681J	R 761	(B,83,94)	RS1/16S1000D
R 645	(A,57,97)	RS1/16SS681J	R 762	(B,96,108)	RN1/16SE2002D
R 646	(A,57,93)	RAB4C681J	R 763	(B,93,108)	RS1/16S473J
R 648	(A,55,88)	RS1/16SS681J	R 764	(B,104,108)	RS1/16S75R0D
R 649	(A,54,88)	RS1/16SS681J	R 765	(B,102,108)	RS1/16S75R0D
R 650	(B,57,91)	RS1/16SS104J	R 766	(B,101,108)	RS1/16S75R0D
R 651	(B,63,93)	RS1/16S681J	R 767	(B,99,108)	RS1/16S750J
R 653	(A,138,84)	RS1/16S2003F	R 768	(B,84,104)	RS1/16S62R0D
R 654	(A,34,105)	RS1/16SS473J	R 769	(B,106,119)	RS1/16S105J
R 655	(A,55,109)	RS1/16SS681J	R 770	(B,87,122)	RS1/16S101J
R 657	(A,54,85)	RS1/16S104J	R 772	(B,103,115)	RS1/16S105J
R 658	(A,35,97)	RS1/16SS101J	R 773	(A,106,98)	RS1/16S750J
R 659	(A,51,88)	RAB4C681J	R 774	(B,96,115)	RS1/16S101J
R 660	(A,43,87)	RS1/16SS104J	R 776	(A,123,121)	RS1/16S750J

Circuit Symbol and No.**Part No.****Circuit Symbol and No.****Part No.**

R 777 (A,90,110)
R 778 (A,80,107)

RS1/16S750J
RS1/16S681J

R 865 (B,29,70)
R 866 (B,26,58)

RS1/16S100J
RS1/16S104J

R 779 (A,81,114)
R 780 (B,81,111)
R 781 (A,107,81)
R 782 (B,85,117)
R 783 (B,91,118)

RS1/16S302J
RS1/16S102J
RS1/16S0R0J
RS1/16S105J
RS1/16S105J

R 867 (B,65,45)
R 868 (B,67,71)
R 869 (B,61,58)
R 870 (B,62,42)
R 873 (B,42,57)

RS1/16S473J
RS1/16S100J
RS1/16S104J
RS1/16S473J
RS1/10S150J

R 784 (B,102,113)
R 785 (B,83,118)
R 794 (A,75,105)
R 795 (A,77,103)
R 796 (A,75,103)

RS1/16S105J
RS1/16S105J
RS1/16S563J
RS1/16SS102J
RS1/16S563J

R 874 (B,31,51)
R 875 (B,31,66)
R 876 (B,42,61)
R 877 (B,77,57)
R 878 (B,66,51)

RS1/16S224J
RS1/16S224J
RS1/10S150J
RS1/10S150J
RS1/16S224J

R 805 (B,25,28)
R 806 (B,23,26)
R 807 (B,51,35)
R 808 (B,50,35)
R 810 (B,70,32)

RS1/16S151J
RS1/16S151J
RS1/16S470J
RS1/16S103J
RS1/16S0R0J

R 879 (B,66,65)
R 880 (B,77,61)
R 884 (B,91,147)
R 885 (B,91,150)
R 886 (B,85,144)

RS1/16S224J
RS1/10S150J
RS1/4S561J
RS1/4S561J
RS1/16S103J

R 812 (B,53,35)
R 813 (B,56,106)
R 814 (A,82,96)
R 817 (B,25,30)
R 819 (B,40,85)

RS1/16S470J
RS1/16S0R0J
RS1/16S0R0J
RS1/16S103J
RS1/8S181J

R 891 (B,111,138)
R 892 (B,109,140)
R 893 (B,111,129)
R 894 (B,113,140)
R 895 (B,111,132)

RS1/16S1101D
RS1/16S6800D
RS1/8S102J
RS1/16S471J
RS1/8S102J

R 820 (B,40,83)
R 821 (A,32,83)
R 824 (B,60,34)
R 825 (A,89,55)
R 826 (A,89,57)

RS1/8S181J
RS1/16S103J
RS1/16S0R0J
RS1/10S360J
RS1/10S360J

R 896 (B,104,129)
R 901 (B,148,122)
R 902 (B,38,122)
R 903 (B,40,116)
R 904 (B,39,116)

RS1/16S103J
RS1/16S224J
RS1/16S473J
RS1/16S223J
RS1/16S223J

R 827 (A,89,53)
R 829 (A,119,138)
R 830 (B,9,52)
R 831 (B,8,52)
R 832 (B,8,54)

RS1/16S103J
RS1/16S475J
RS1/16S101J
RS1/16S1600D
RS1/16S5601D

R 905 (B,26,82)
R 906 (B,30,82)
R 911 (B,62,119)
R 912 (B,116,140)
R 913 (B,121,138)

RS1/10S472J
RS1/16S223J
RS1/16S474J
RS1/16S472J
RS1/16S102J

R 833 (B,9,56)
R 834 (B,9,70)
R 835 (B,15,70)
R 836 (B,31,49)
R 837 (B,27,48)

RS1/16S1001D
RS1/16S331J
RS1/16S154J
RS1/16S3300D
RS1/16S101J

R 914 (B,62,111)
R 915 (B,66,119)
R 916 (B,64,119)
R 917 (B,66,98)
R 918 (B,67,99)

RS1/16S473J
RS1/16S473J
RS1/16S473J
RS1/16S0R0J
RS1/16S471J

R 838 (B,27,49)
R 839 (B,25,49)
R 840 (B,26,51)
R 841 (B,26,54)
R 842 (B,31,67)

RS1/16S3001D
RS1/16S1001D
RS1/16S102J
RS1/16S104J
RS1/16S6800D

R 919 (A,112,138)
R 920 (B,68,133)
R 921 (B,62,117)
R 922 (B,87,135)
R 925 (A,69,109)

RS1/16S475J
RS1/16S101J
RS1/16S103J
RS1/16S0R0J
RS1/16S102J

R 843 (B,27,67)
R 844 (B,25,68)
R 845 (B,27,69)
R 846 (B,26,66)
R 847 (B,66,48)

RS1/16S5601D
RS1/16S1001D
RS1/16S101J
RS1/16S102J
RS1/16S5600D

R 926 (A,69,110)
R 927 (B,68,131)
R 928 (B,67,134)
R 929 (B,63,135)
R 936 (B,66,91)

RS1/16S103J
RS1/16S471J
RS1/16S103J
RS1/10S103J
RS1/16S820J

R 848 (B,63,48)
R 849 (B,63,49)
R 850 (B,60,49)
R 851 (B,61,51)
R 852 (B,66,69)

RS1/16S2401D
RS1/16S101J
RS1/16S1601D
RS1/16S152J
RS1/16S1200D

R 937 (B,69,91)
R 938 (B,114,138)
R 939 (B,8,49)
R 940 (B,31,47)
R 941 (B,33,68)

RS1/16S820J
RS1/16S561J
RS1/16S0R0J
RS1/16S0R0J
RS1/16S0R0J

R 853 (B,63,69)
R 854 (B,61,53)
R 855 (B,63,68)
R 856 (B,60,68)
R 857 (B,61,66)

RS1/16S1001D
RS1/16S104J
RS1/16S101J
RS1/16S1001D
RS1/16S152J

R 942 (B,66,46)
R 943 (B,68,68)
R 944 (B,26,63)
R 945 (B,61,63)
R 946 (B,37,116)

RS1/16S0R0J
RS1/16S0R0J
RS1/16S104J
RS1/16S104J
RS1/16S4701D

R 858 (B,21,67)
R 859 (B,16,57)
R 861 (B,9,47)

RS1/16S100J
RS1/16S184J
RS1/10S100J

R 952 (A,78,95)
R 954 (B,57,149)
R 962 (A,31,95)

RS1/16S473J
RS1/16S103J
RS1/16S103J

<u>Circuit Symbol and No.</u>		<u>Part No.</u>	<u>Circuit Symbol and No.</u>		<u>Part No.</u>
R 971	(B,17,127)	RS1/16S824J	R 2478	(B,143,101)	RS1/16S472J
R 972	(B,16,131)	RS1/16S102J	R 2479	(B,143,103)	RS1/16S472J
			R 2480	(B,145,119)	RS1/16S472J
R 973	(B,21,125)	RS1/16S472J			
R 974	(B,18,122)	RS1/8S271J	R 2481	(B,143,115)	RS1/16S472J
R 975	(B,18,119)	RS1/8S751J	R 2482	(B,143,106)	RS1/16S472J
R 977	(B,30,126)	RS1/16S103J	R 2483	(B,143,112)	RS1/16S472J
R 978	(B,32,126)	RS1/16S103J	R 2484	(B,146,104)	RS1/16S472J
			R 2485	(B,146,114)	RS1/16S472J
R 979	(A,8,47)	RS1/10S0R0J			
R 981	(A,48,72)	RS1/10S0R0J	R 2486	(B,148,103)	RS1/16S472J
R 982	(A,85,71)	RS1/10S0R0J	R 2487	(B,149,116)	RS1/16S472J
R 983	(B,14,44)	RS1/10S102J	R 2488	(B,148,101)	RS1/16S471J
R 2403	(A,135,123)	RS1/16S102J	R 2489	(B,149,117)	RS1/16S471J
			R 2492	(B,24,110)	RS1/16S223J
R 2404	(B,128,135)	RS1/16S473J			
R 2407	(B,128,126)	RS1/16SS473J	R 2493	(B,25,114)	RS1/16S473J
R 2409	(B,131,133)	RS1/16S473J	R 2496	(B,31,112)	RS1/16S103J
R 2410	(B,131,128)	RS1/16SS473J	R 2497	(B,23,117)	RS1/4S102J
R 2411	(B,133,135)	RS1/16S473J	R 2499	(B,23,123)	RS1/16S103J
			R 2500	(B,24,126)	RS1/16S103J
R 2416	(B,132,126)	RS1/16SS473J			
R 2417	(B,109,103)	RS1/16S104J	R 2501	(B,29,142)	RS1/16S221J
R 2418	(B,110,107)	RS1/16S102J	R 2502	(B,26,139)	RS1/16S102J
R 2419	(B,133,123)	RS1/16SS473J	R 2503	(B,31,142)	RS1/16S101J
R 2420	(B,133,138)	RS1/16S473J	R 2551	(A,14,140)	RS1/16SS101J
			R 2552	(A,15,143)	RS1/16SS621J
R 2421	(B,110,109)	RS1/16S473J			
R 2422	(B,135,137)	RS1/16S473J	R 2553	(A,14,145)	RS1/16SS473J
R 2423	(B,135,124)	RS1/16SS473J	R 2555	(A,10,146)	RS1/16SS361J
R 2424	(B,112,111)	RS1/16S473J	R 2556	(B,137,119)	RS1/16S473J
R 2425	(B,136,137)	RS1/16S473J	R 2557	(B,137,121)	RS1/16S473J
			R 2558	(B,130,120)	RS1/16SS473J
R 2426	(B,136,124)	RS1/16SS473J			
R 2428	(B,116,114)	RS1/16S0R0J	R 2566	(A,128,105)	RS1/16SS101J
R 2432	(B,119,105)	RS1/16S473J	R 2567	(A,128,106)	RS1/16SS101J
R 2433	(B,115,105)	RS1/16S473J	R 2568	(A,128,107)	RS1/16SS101J
R 2438	(A,146,111)	RS1/16S181J	R 2569	(B,133,121)	RS1/16S102J
			R 2570	(B,130,116)	RS1/16S0R0J
R 2439	(B,122,114)	RS1/16S331J			
R 2440	(A,145,109)	RS1/16S181J	R 2571	(B,146,103)	RS1/16S224J
R 2441	(A,145,107)	RS1/16S223J	R 2572	(B,146,115)	RS1/16S224J
R 2444	(A,145,113)	RS1/16S223J	R 2602	(A,161,118)	RS1/8S0R0J
R 2445	(A,145,104)	RS1/16S102J	R 2603	(B,157,105)	RS1/16S102J
			R 2604	(B,157,107)	RS1/16S102J
R 2446	(A,144,115)	RS1/16S102J			
R 2447	(B,123,112)	RS1/16S104J	R 2606	(B,162,110)	RS1/16S683J
R 2448	(B,131,114)	RS1/16S473J	R 2608	(B,161,106)	RS1/16S153J
R 2449	(B,129,114)	RS1/16S101J	R 2610	(B,164,104)	RS1/16S0R0J
R 2450	(B,131,105)	RS1/16S473J	R 2612	(B,170,103)	RS1/16S752J
			R 2613	(B,160,110)	RS1/16S683J
R 2451	(B,151,92)	RS1/16S152J			
R 2452	(B,128,105)	RS1/16S101J	R 2615	(B,168,103)	RS1/16S394J
R 2459	(A,127,98) (UC)	RS1/16S471J	R 2616	(B,168,100)	RS1/16S101J
	(A,127,98) (EW)	RS1/16S0R0J	R 2617	(B,164,101)	RS1/16S105J
R 2460	(B,155,92)	RS1/16S104J	R 2618	(B,162,102)	RS1/16S102J
			R 2619	(B,162,100)	RS1/16S472J
R 2461	(B,147,84)	RS1/16S1202D			
R 2462	(B,145,88)	RS1/16S1003D	R 2620	(B,159,102)	RS1/16S152J
R 2463	(A,130,97)	RS1/16S0R0J	R 2621	(B,159,100)	RS1/16S472J
R 2464	(A,127,114)	RS1/16S0R0J	R 2622	(B,156,102)	RS1/16S472J
R 2465	(A,130,117) (UC)	RS1/16SS471J	R 2623	(B,156,100)	RS1/16S472J
	(A,130,117) (EW)	RS1/16SS0R0J	R 2624	(B,161,118)	RS1/16S333J
R 2470	(A,127,101)	RS1/16S0R0J	R 2625	(B,165,116)	RS1/16S683J
R 2471	(A,130,120)	RS1/16S0R0J	R 2626	(B,163,116)	RS1/16S154J
R 2472	(B,137,104)	RS1/16S331J	R 2627	(B,162,116)	RS1/16S101J
R 2473	(B,137,115)	RS1/16S331J	R 2628	(B,133,115)	RS1/16S103J
R 2474	(B,152,82)	RS1/16S101J	R 2629	(B,134,104)	RS1/16S103J
R 2475	(B,140,104)	RS1/16S104J	R 2630	(B,166,114)	RS1/16S473J
R 2476	(B,140,114)	RS1/16S104J	R 2631	(B,169,113)	RS1/16S473J

Circuit Symbol and No.**Part No.****Circuit Symbol and No.****Part No.**

R 2701 (B,49,30) RS1/16S222J
 R 2702 (B,58,9) RS1/16S222J
 R 2706 (B,53,18) RS1/16S222J

C 21 (B,148,23) CKSRYB104K16
 C 22 (B,148,25) CKSRYB104K16
 C 23 (B,148,30) CKSRYB104K16
 C 24 (B,148,41) CKSRYB104K16
 C 25 (A,141,37) CKSRYB104K16

R 2707 (B,54,23) RS1/16S102J
 R 2708 (B,53,27) RS1/16S102J
 R 2710 (A,46,20) RS1/16S102J
 R 2711 (A,46,25) RS1/16S102J
 R 2712 (B,51,19) RS1/16S103J

C 26 (A,141,66) CKSRYB104K16
 C 27 (B,152,18) 10 μ F CCG1171
 C 28 (B,157,16) CKSRYB104K16
 C 29 (B,163,28) CKSRYB104K16
 C 30 (A,158,19) CKSRYF104Z25

R 2715 (B,35,14) RS1/16S223J
 R 2716 (B,43,26) RS1/16S223J
 R 2717 (B,35,13) RS1/16S472J
 R 2718 (B,39,12) RS1/16S103J
 R 2719 (B,39,14) RS1/16S223J

C 31 (B,132,59) CCSRCH9R0D50
 C 32 (B,132,63) CCSRCH9R0D50
 C 33 (A,136,37) CKSRYB104K16
 C 35 (A,136,67) CKSRYB104K16
 C 36 (A,130,66) CKSRYB104K16

R 2720 (B,40,12) RS1/16S472J
 R 2721 (A,36,15) RS1/16S223J
 R 2722 (A,36,14) RS1/16S472J
 R 2723 (A,39,15) (EW) RS1/16S223J
 R 2724 (A,39,14) (EW) RS1/16S472J

C 38 (A,135,33) 10 μ F CCG1171
 C 39 (A,127,42) CKSRYB104K16
 C 40 (A,127,43) CKSRYB104K16
 C 41 (A,127,51) CKSRYB104K16
 C 42 (B,141,45) CKSRYB104K16

R 2725 (A,43,13) (EW) RS1/16S103J
 R 2726 (A,42,15) (EW) RS1/16S223J
 R 2727 (A,39,23) (UC) RS1/16S0R0J
 R 2729 (A,42,13) (EW) RS1/16S472J
 R 2730 (B,33,102) RS1/16S471J

C 44 (B,137,57) CKSRYB104K16
 C 47 (B,145,66) CKSRYB104K16
 C 49 (B,144,45) CKSRYB104K16
 C 51 (A,149,37) CKSRYB224K10
 C 54 (B,84,38) CCSRCH121J50

R 2731 (B,33,99) RS1/16S471J
 R 2732 (A,38,25) RS1/16S332J
 R 2733 (A,40,25) RS1/16S332J
 R 7021 (A,122,123) RS1/16S820J
 R 7037 (B,145,134) RS1/16S101J

C 55 (B,148,45) CKSRYB104K16
 C 57 (B,152,45) CKSRYB104K16
 C 60 (B,153,66) CKSRYB104K16
 C 63 (B,158,47) CKSRYB104K16
 C 64 (B,158,53) CKSRYB104K16

R 7038 (B,144,136) RS1/16S101J
 R 7039 (B,121,133) RS1/16S750J
 R 7042 (B,114,130) RS1/16S4701D
 R 7043 (B,118,127) RS1/16S4701D
 R 7044 (B,113,124) RS1/16S101J

C 66 (B,158,55) CKSRYB104K16
 C 67 (B,160,56) 10 μ F CCG1171
 C 68 (A,131,36) 22 μ F CCG1178
 C 69 (A,131,34) 22 μ F CCG1178
 C 70 (A,131,31) 22 μ F CCG1178

R 7045 (B,123,120) RS1/16S102J
 R 7046 (B,115,127) RS1/16S4701D
 R 7047 (B,118,126) RS1/16S4701D
 R 7048 (B,117,116) RS1/16S563J
 R 7049 (B,120,120) RS1/16S473J

C 71 (B,130,62) CKSRYF103Z50
 C 72 (B,163,52) CKSRYF103Z50
 C 73 (B,162,52) CKSRYF104Z25
 C 74 (B,158,62) CKSRYF104Z25
 C 75 (A,157,18) CKSRYF104Z25

CAPACITORS

C 1 (B,132,19) CKSRYB104K16
 C 2 (B,132,23) CKSRYB104K16
 C 3 (B,132,25) CKSRYB104K16
 C 4 (B,132,30) CKSRYB104K16
 C 5 (B,132,42) CKSRYB104K16

C 76 (B,132,28) CKSRYB103K50
 C 77 (B,139,18) CKSRYB103K50
 C 78 (B,146,22) CKSRYB103K50
 C 79 (B,163,31) CKSRYB103K50
 C 80 (B,156,18) CKSRYB103K50

C 6 (A,152,37) CKSRYB104K16
 C 7 (A,157,45) CKSRYB104K16
 C 8 (A,156,50) CKSRYB104K16
 C 9 (A,156,53) CKSRYB104K16
 C 10 (A,157,56) CKSRYB104K16

C 81 (B,148,40) CKSRYB224K10
 C 82 (B,163,23) CKSRYB103K50
 C 96 (B,164,23) CKSRYB224K10
 C 97 (B,164,28) CKSRYB224K10
 C 98 (B,164,31) CKSRYB224K10

C 11 (A,157,61) CKSRYB104K16
 C 12 (B,136,18) 10 μ F CCG1171
 C 13 (B,146,26) CKSRYB104K16
 C 14 (B,146,30) CKSRYB104K16
 C 15 (A,148,37) CKSRYB104K16

C 101 (A,131,18) CKSRYB104K16
 C 102 (A,135,12) CKSRYB104K16
 C 103 (A,140,26) CKSRYB104K16
 C 104 (A,148,30) CKSRYB104K16
 C 105 (A,156,30) CKSRYB104K16

C 16 (A,145,37) CKSRYB104K16
 C 17 (A,147,67) CKSRYB104K16
 C 18 (A,145,69) CCSRCH100D50
 C 19 (A,143,69) CCSRCH100D50
 C 20 (B,149,19) CKSRYB104K16

C 106 (A,165,30) CKSRYB104K16
 C 107 (A,161,34) CKSRYB104K16
 C 108 (A,161,42) CKSRYB104K16
 C 109 (A,161,51) CKSRYB104K16
 C 110 (B,106,43) 10 μ F CCG1171

<u>Circuit Symbol and No.</u>			<u>Part No.</u>	<u>Circuit Symbol and No.</u>			<u>Part No.</u>	
C 111	(B,107,40)		CKSRYB104K16	C 252	(A,90,43) 10μF		CCG1171	
C 112	(B,107,35)		CKSRYF224Z16	C 253	(A,126,15)		CKSRYF104Z25	A
C 113	(B,106,28) 10μF		CCG1171	C 255	(A,88,34)		CKSRYB103K50	
C 114	(B,107,25)		CKSRYB104K16	C 256	(A,88,28)		CKSRYB103K50	
C 115	(B,107,20)		CKSRYF224Z16	C 257	(A,88,27)		CKSRYB103K50	
C 116	(B,119,65)		CKSRYF104Z25	C 258	(A,88,23)		CKSRYB103K50	
C 117	(B,107,52) 10μF		CCG1171	C 259	(A,88,22)		CKSRYB103K50	
C 118	(B,107,51)		CKSRYB104K16	C 260	(A,88,16)		CKSRYB103K50	
C 119	(B,119,50)		CKSRYF104Z25	C 261	(A,85,9)		CKSRYB103K50	
C 120	(B,109,63)		CKSRYF104Z25	C 262	(A,84,9)		CKSRYB103K50	
C 121	(B,109,58)		CKSRYF104Z25	C 301	(A,141,22)		CKSRYF104Z25	
C 122	(B,104,39)		CKSRYF104Z25	C 302	(A,149,22)		CKSRYB334K10	
C 123	(B,106,55)		CKSRYF103Z50	C 303	(A,142,13)		CKSRYF104Z25	B
C 124	(B,130,41)		CCSRCH101J50	C 306	(A,120,49)		CKSRYF104Z25	
C 125	(A,166,34)		CKSRYF104Z25	C 323	(A,108,57) 10μF		CCG1171	
C 126	(A,166,51)		CKSRYF104Z25	C 324	(A,97,67)		CKSRYB104K16	
C 201	(A,124,39)		CKSRYB104K16	C 327	(A,98,69) 10μF		CCG1171	
C 202	(A,119,43)		CKSRYB104K16	C 328	(A,105,52)		CKSRYB104K16	
C 203	(A,118,43)		CKSRYB104K16	C 329	(A,103,51) 10μF		CCG1171	
C 204	(A,122,38)		CKSRYB104K16	C 330	(A,91,61) 10μF		CCG1171	
C 205	(A,112,43)		CKSRYB104K16	C 331	(A,93,61)		CKSRYB104K16	
C 206	(A,106,42)		CKSRYB104K16	C 332	(A,93,64)		CKSRYB104K16	
C 207	(A,100,43)		CKSRYB104K16	C 339	(A,91,65) 10μF		CCG1171	
C 208	(A,97,43)		CKSRYB104K16	C 341	(A,161,19)		CCSRCH101J50	C
C 209	(A,88,38)		CKSRYB104K16	C 342	(A,141,15)		CKSRYF104Z25	
C 211	(A,122,35)		CKSRYB104K16	C 344	(B,146,13)		CKSRYF103Z50	
C 213	(A,122,33)		CKSRYB104K16	C 345	(B,145,13)		CKSRYF104Z25	
C 214	(A,124,33)		CKSRYB104K16	C 346	(B,131,13)		CKSRYF103Z50	
C 215	(A,88,36)		CKSRYB104K16	C 347	(B,119,11)		CKSRYF103Z50	
C 216	(A,88,33)		CKSRYB104K16	C 348	(B,118,9)		CKSRYF104Z25	
C 217	(A,88,31)		CKSRYB104K16	C 349	(B,97,8)		CKSRYF103Z50	
C 220	(A,126,34) 10μF		CCG1171	C 350	(A,94,67)		CKSRYB104K16	
C 221	(A,122,30)		CKSRYB104K16	C 601	(B,54,98)		CKSSYB104K10	
C 222	(A,122,27)		CKSRYB104K16	C 602	(A,35,98)		CKSSYB104K10	
C 223	(A,124,9)		CKSRYB224K10	C 603	(B,44,91)		CKSSYB104K10	D
C 224	(A,122,25)		CKSRYB104K16	C 604	(B,46,91)		CKSSYB104K10	
C 225	(A,124,30)		CKSRYB104K16	C 605	(B,44,95)		CKSSYB104K10	
C 227	(A,88,30)		CKSRYB104K16	C 606	(A,35,94)		CKSRYB104K16	
C 228	(A,88,25)		CKSRYB104K16	C 607	(A,37,86)		CKSSYB104K10	
C 230	(A,127,26)		CCSRCH150J50	C 608	(B,57,96)		CKSSYB104K10	
C 231	(A,128,17)		CCSRCH120J50	C 609	(B,150,133)		CKSRYB104K16	
C 232	(A,122,22)		CKSRYB104K16	C 610	(A,124,90)		CKSSYB104K10	
C 233	(A,122,19)		CKSRYB104K16	C 611	(B,46,93)		CKSSYB104K10	
C 234	(A,88,21)		CKSRYB104K16	C 612	(A,133,87)		CKSSYB104K10	
C 235	(A,88,19)		CKSRYB104K16	C 617	(B,56,89)		CKSQYB225K10	
C 237	(A,123,16)		CKSRYB104K16	C 620	(B,46,104)		CKSRYF104Z25	E
C 238	(A,123,14)		CKSRYB104K16	C 623	(B,50,88)		CKSSYB104K10	
C 239	(A,88,18)		CKSRYB104K16	C 624	(B,51,104)		CKSRYF104Z25	
C 240	(A,88,15)		CKSRYB104K16	C 626	(B,51,83)		CKSSYB103K16	
C 241	(A,88,13)		CKSRYB104K16	C 630	(A,33,98)		CCSRCH101J50	
C 242	(A,116,9)		CKSRYB104K16	C 636	(A,24,83)		CKSRYF104Z25	
C 243	(A,113,9)		CKSRYB104K16	C 637	(A,26,98)		CKSRYF104Z25	
C 244	(A,109,9)		CKSRYB104K16	C 638	(B,18,105)		CKSRYF104Z25	
C 245	(A,106,9)		CKSRYB104K16	C 639	(A,28,104)		CKSRYF104Z25	
C 246	(A,103,9)		CKSRYB104K16	C 640	(B,28,99)		CKSRYF104Z25	
C 247	(A,98,9)		CKSRYB104K16	C 642	(B,17,100)		CKSRYF104Z25	F
C 248	(A,93,9)		CKSRYB104K16	C 643	(B,27,97)		CKSRYF104Z25	
C 249	(A,88,10) 10μF		CCG1171	C 644	(A,28,121)		CKSRYF104Z25	
C 250	(A,108,44) 10μF		CCG1171	C 645	(A,28,112) 10μF		CCG1173	
C 251	(A,124,27) 10μF		CCG1171	C 647	(A,19,113) 10μF		CCG1173	

Circuit Symbol and No.**Part No.****Circuit Symbol and No.****Part No.**

A C 648 (A,48,121) CKSRYF104Z25
 C 670 (A,39,86) CKSSYB104K10
 C 671 (A,35,99) CKSSYB104K10
 C 672 (A,35,96) CKSSYB104K10
 C 673 (B,41,106) CKSSYB104K10

C 675 (A,138,86) CKSSYB104K10
 C 691 (B,157,152) CKSRYB102K50
 C 692 (B,157,143) CKSRYB104K16
 C 693 (B,160,146) CKSQYB105K16
 C 694 (B,159,142) CKSQYB105K16

B C 695 (B,167,149) CKSQYB105K16
 C 696 (B,172,152) CKSRYB102K50
 C 697 (B,161,136) CKSQYB105K16
 C 698 (B,164,136) CKSQYB105K16
 C 699 (B,170,135) CKSRYB102K50

C 700 (B,167,135) CKSRYB102K50
 C 701 (B,169,135) CKSRYB102K50
 C 702 (B,166,135) CKSRYB102K50
 C 706 (B,60,151) CKSRYB104K25
 C 732 (B,154,144) CKSRYB102K50

C 733 (B,151,144) CKSRYB102K50
 C 734 (B,148,134) CKSRYB102K50
 C 735 (B,142,139) CKSRYB102K50
 C 736 (B,135,148) CKSRYF104Z25
 C 737 (A,131,133) CKSRYF104Z25

C 738 (A,128,133) CKSRYF104Z25
 C 739 (B,133,152) CKSRYF104Z25
 C 740 (B,135,152) CKSRYF104Z25
 C 741 (B,138,151) CKSRYF104Z25
 C 748 (B,86,89) CKSSYB103K16

C 749 (B,87,92) CKSQYB225K10
 C 751 (B,104,96) CKSRYB104K16
 C 752 (B,102,96) CKSRYB104K16
 C 753 (B,100,96) CKSRYB104K16
 D C 754 (B,99,94) CCSRCH5R0C50

C 755 (B,94,96) CCSRCH470J50
 C 756 (B,95,96) CKSRYF104Z25
 C 757 (A,93,96) CEVQW470M16
 C 758 (B,92,92) CKSRYB105K6R3
 C 761 (B,95,108) CCSRCH220J50

C 762 (A,87,96) CEVW100M16
 C 763 (B,92,108) CKSRYF104Z25
 C 764 (A,101,105) CEVW221M4
 C 765 (A,94,105) CEVW221M4
 C 766 (A,86,105) CEVW221M4

E C 767 (A,111,104) CEVW221M4
 C 768 (B,98,108) CKSRYB105K6R3
 C 769 (A,99,96) CEVQW470M16
 C 770 (B,94,93) CKSRYB104K16
 C 771 (A,102,120) CKSRYB104K16

C 772 (A,99,116) CEVW101M16
 C 773 (B,85,120) CKSQYB225K10
 C 774 (B,92,121) CKSQYB225K10
 C 775 (A,96,121) CKSRYB103K50
 C 776 (B,106,109) CKSQYB225K10

F C 777 (A,86,116) CEVW101M16
 C 778 (A,92,115) CEVW220M6R3
 C 779 (B,83,114) CKSYF106Z10
 C 780 (B,88,109) CKSQYB225K10
 C 781 (B,81,115) CKSQYB225K10

C 782 (A,109,121) CKSRYB104K16
 C 783 (A,106,116) CEVW101M16
 C 784 (A,105,121) CKSRYB103K50
 C 785 (B,104,119) CKSQYB225K10
 C 786 (A,120,116) CEVW101M16

C 787 (A,114,116) CEVW220M6R3
 C 788 (B,88,105) CKSRYB104K16
 C 790 (B,78,117) CKSRYB104K16
 C 791 (B,77,115) CKSYF106Z10
 C 792 (B,100,122) CKSRYB104K16

C 793 (B,102,123) CKSYF106Z10
 C 794 (B,108,121) CKSYF106Z10
 C 795 (A,80,103) CKSQYB225K10
 C 796 (A,76,101) CKSQYB225K10
 C 797 (B,88,107) 10μF CCG1171

C 798 (B,109,118) CKSRYB104K16
 C 799 (B,75,112) CKSRYB104K16
 C 800 (B,96,118) CKSRYB104K16
 C 801 (B,29,31) CKSRYB103K50
 C 802 (A,30,28) CEVW101M16

C 803 (B,26,80) CKSQYB225K10
 C 804 (A,42,32) CEVW101M16
 C 805 (B,50,37) CKSRYB103K50
 C 806 (B,63,78) CKSRYB103K50
 C 807 (A,65,83) CEVW470M16

C 808 (B,69,79) CKSRYF334Z16
 C 809 (A,124,134) CKSRYB103K50
 C 810 (A,121,129) CEVW101M16
 C 811 (A,68,72) CKSRYF104Z25
 C 812 (A,44,81) CKSRYB103K50

C 813 (A,49,82) CEVW101M16
 C 814 (A,32,88) CEVW101M16
 C 815 (A,92,54) CKSRYB103K50
 C 816 (A,97,53) CEVW101M16
 C 817 (B,9,54) CKSRYB473K50

C 818 (B,12,70) CKSRYB103K50
 C 819 (B,10,68) CCSRCH101J50
 C 820 (B,8,68) CKSRYB224K16
 C 821 (B,31,48) CKSRYB473K50
 C 822 (B,28,52) CCSRCH101J50

C 823 (B,26,52) CKSRYB104K16
 C 824 (B,31,69) CKSRYB223K50
 C 825 (B,28,65) CCSRCH101J50
 C 826 (B,26,64) CKSRYB104K16
 C 827 (B,66,49) CKSRYB153K50

C 828 (B,63,51) CCSRCH101J50
 C 829 (B,61,52) CKSRYB104K16
 C 830 (B,66,68) CKSRYB153K50
 C 831 (B,63,65) CCSRCH101J50
 C 832 (B,61,65) CKSRYB104K25

C 833 (B,13,70) CCSRCH330J50
 C 834 (B,16,70) CKSRYB105K10
 C 835 (B,20,70) 4.7μF CCG1111
 C 836 (B,16,59) CKSRYF104Z25
 C 837 (B,9,64) CKSYB475K16

C 838 (B,12,59) CKSRYF474Z16
 C 839 (A,15,45) 220μF/10V CCH1409
 C 840 (A,17,61) 10μF CCG1173
 C 841 (B,25,72) 4.7μF CCG1111
 C 842 (B,26,55) CKSRYB103K50

Circuit Symbol and No.			Part No.	Circuit Symbol and No.			Part No.
C 843	(B,26,57)		CCSRCH470J50	C 909	(A,96,134)		CKSRYF104Z25
C 844	(B,26,60)		CKSRYB105K10	C 910	(B,59,134)		CKSRYB104K25
C 845	(B,26,62)		CKSRYB103K50	C 914	(A,82,145)		CKSRYF104Z25
C 846	(B,64,72) 4.7μF		CCG1111	C 916	(B,54,132)		CKSQYB104K25
C 847	(B,61,55)		CKSRYB103K50	C 918	(B,29,26)		CKSRYB103K50
C 848	(B,61,56)		CCSRCH470J50	C 919	(B,70,93)		CKSRYB104K25
C 849	(B,61,59)		CKSRYB105K10	C 920	(B,118,141)		CKSRYF104Z25
C 850	(B,61,62)		CKSRYB103K50	C 950	(B,19,55) 4.7μF		CCG1111
C 851	(A,20,57) 10μF		CCG1173	C 951	(B,19,52) 4.7μF		CCG1111
C 852	(B,19,49) 4.7μF		CCG1111	C 953	(B,34,49) 4.7μF		CCG1111
C 853	(B,34,53)		CKSRYF474Z16	C 954	(A,32,51) 10μF		CCG1173
C 854	(B,31,52)		CKSRYF104Z25	C 955	(B,35,68) 4.7μF		CCG1111
C 855	(B,31,64)		CKSRYF104Z25	C 956	(A,32,56) 10μF		CCG1173
C 856	(B,35,64)		CKSRYF474Z16	C 957	(A,65,56) 10μF		CCG1173
C 857	(B,27,46)		CKSYB475K16	C 958	(A,65,51) 4.7μF		CCG1111
C 858	(B,69,53)		CKSRYF474Z16	C 959	(A,68,56) 10μF		CCG1173
C 859	(B,66,52)		CKSRYF104Z25	C 960	(A,68,51) 4.7μF		CCG1111
C 860	(B,66,66)		CKSRYF104Z25	C 961	(A,82,150)		CKSRYF104Z25
C 861	(B,69,64)		CKSRYF474Z16	C 962	(A,33,95)		CKSRYB103K50
C 862	(B,69,44)		CKSYB475K16	C 963	(B,54,149)		CKSRYB104K25
C 863	(B,77,123)		CKSRYF104Z25	C 964	(B,54,150)		CKSRYB105K10
C 865	(A,27,54) 10μF		CCG1173	C 971	(B,16,128)		CKSRYB222K50
C 868	(B,38,49) 4.7μF		CCG1111	C 972	(B,17,130)		CKSRYB474K10
C 869	(A,49,54) 330μF/6.3V		CCH1366	C 973	(B,8,122)		CKSQYB105K16
C 870	(B,39,68) 4.7μF		CCG1111	C 974	(A,13,115)		CKSQYB103K50
C 871	(A,49,63) 220μF/10V		CCH1409	C 975	(A,19,124)		CEVQW470M16
C 872	(A,61,55) 10μF		CCG1173	C 981	(B,74,78)		CKSRYB103K50
C 873	(A,61,52) 10μF		CCG1173	C 982	(B,71,78)		CKSRYF104Z25
C 875	(B,73,68) 4.7μF		CCG1111	C 983	(B,75,35)		CKSRYB103K50
C 876	(A,84,54) 330μF/6.3V		CCH1366	C 984	(B,73,35)		CKSRYF104Z25
C 877	(B,72,50) 4.7μF		CCG1111	C 985	(B,64,35)		CKSRYB103K50
C 878	(A,86,65) 330μF/6.3V		CCH1366	C 986	(B,62,35)		CKSRYF104Z25
C 879	(A,80,127) 220μF/25V		CCH1356	C 987	(A,92,82)		CKSRYB103K50
C 880	(B,87,141)		CKSQYB104K16	C 988	(A,93,82)		CKSRYF104Z25
C 881	(A,82,137) 2200μF		CCH1405	C 989	(A,92,84)		CKSRYB103K50
C 882	(A,106,130)		CEVW101M16	C 990	(A,93,84)		CKSRYF104Z25
C 883	(B,34,88)		CKSRYB103K50	C 2019	(B,158,103)		CKSRYB104K16
C 884	(A,74,83)		CEVW101M16	C 2404	(B,117,89)		CKSRYB104K16
C 885	(A,70,91)		CKSRYF104Z25	C 2407	(B,114,92)		CKSRYB104K16
C 887	(A,77,88)		CKSRYF104Z25	C 2412	(A,130,128)		CEVW101M16
C 888	(B,108,140)		CKSRYB103K50	C 2413	(B,131,136)		CKSRYB105K10
C 889	(B,112,140)		CKSRYB103K50	C 2414	(B,130,125)		CKSRYB105K10
C 890	(B,115,140)		CKSRYF104Z25	C 2418	(B,108,105)		CKSRYB105K6R3
C 891	(B,148,121)		CKSRYF104Z25	C 2419	(B,133,136)		CCSRCH330J50
C 892	(B,69,98)		CKSRYB103K50	C 2420	(B,133,125)		CCSRCH330J50
C 893	(A,60,103)		CEVW101M16	C 2421	(B,111,105)		CKSRYB103K50
C 894	(B,61,105)		CKSRYB103K50	C 2422	(B,139,137)		CCSRCH151J50
C 895	(B,31,88)		CKSRYB104K16	C 2423	(B,139,123)		CCSRCH151J50
C 896	(A,117,136)		CKSRYB103K50	C 2424	(B,112,108)		CCSRCH221J50
C 897	(A,114,129)		CEVW101M16	C 2425	(B,136,135)		CCSRCH330J50
C 898	(A,84,123)		CKSQYB104K16	C 2426	(B,135,125)		CCSRCH330J50
C 899	(A,88,128) 220μF/25V		CCH1356	C 2431	(B,112,113)		CCSRCH471J50
C 900	(B,90,133)		CKSQYB104K16	C 2432	(B,138,130)		CKSRYF104Z25
C 901	(B,99,140)		CKSRYB103K50	C 2433	(A,138,127)		CEVQW220M16
C 902	(A,98,127)		CEVW101M16	C 2434	(B,138,134)		CKSRYB105K6R3
C 903	(A,152,128) 10000μF/16V		CCH1412	C 2435	(B,138,127)		CKSRYB105K6R3
C 905	(A,68,103)		CEVW101M16	C 2436	(B,119,114)		CKSRYB105K6R3
C 906	(A,58,110)		CKSRYB104K16	C 2437	(A,151,106)		CKSRYB102K50
C 907	(A,58,112)		CKSRYB473K50	C 2441	(A,144,104)		CKSRYB105K6R3
C 908	(B,61,134)		CKSRYF103Z50	C 2442	(B,138,125)		CKSRYB105K6R3

Circuit Symbol and No.**Part No.****Circuit Symbol and No.****Part No.**

A C 2443 (B,138,133) CKSRYB105K6R3
 C 2444 (A,144,110) CKSRYB105K6R3
 C 2445 (A,147,98) CEVW470M16
 C 2446 (A,145,102) CKSRYB105K6R3
 C 2447 (A,148,102) CKSRYB104K16

C 2506 (A,18,130) CEVW100M16
 C 2507 (B,39,141) CKSYB475K16
 C 2508 (B,39,139) CKSYB475K16
 C 2509 (A,52,130) CEVW330M25
 C 2510 (A,46,138) CKSRYB473K50

C 2448 (A,143,112) CKSRYB105K6R3
 C 2449 (B,126,111) CKSRYB105K6R3
 C 2450 (A,118,108) CEVQW220M16
 C 2451 (B,132,109) CKSRYF104Z25
 C 2452 (B,146,92) CKSRYB105K6R3

C 2519 (B,170,117) CKSRYF104Z25
 C 2552 (A,13,143) CCSRCH150J50
 C 2553 (A,7,143) CKSRYB104K16
 C 2554 (A,10,143) CKSQYB225K10
 C 2555 (A,12,145) CKSSYB104K10

B C 2453 (A,141,97) CKSYB475K16
 C 2456 (A,141,117) CKSYB475K16
 C 2457 (A,139,97) CKSYB475K16
 C 2458 (A,139,117) CKSYB475K16
 C 2459 (A,136,97) CKSYB475K16

C 2556 (B,131,120) CKSSYB104K10
 C 2557 (B,130,118) CKSSYB103K16
 C 2558 (B,137,118) CKSRYB103K50
 C 2603 (A,162,109) CEVQW220M16
 C 2604 (B,159,109) CKSRYB473K50

C 2460 (A,136,117) CKSYB475K16
 C 2461 (B,156,92) CKSRYB332K50
 C 2462 (A,133,97) CKSYB475K16
 C 2463 (A,133,117) CKSYB475K16
 C 2464 (B,153,92) CKSRYB474K10

C 2605 (B,161,108) CKSRYB473K50
 C 2606 (B,165,104) CKSRYB333K50
 C 2607 (B,168,102) CKSRYB105K6R3
 C 2608 (B,168,105) CCSRCH471J50
 C 2609 (B,169,109) CKSRYF104Z25

C 2465 (B,150,89) CKSRYB104K16
 C 2466 (A,127,109) CKSRYB104K16
 C 2467 (A,127,111) CKSRYB104K16
 C 2468 (A,127,112) CCSRCH100D50
 C 2469 (B,150,86) CKSRYB104K16

C 2610 (A,167,109) CEVQW220M16
 C 2611 (B,167,100) CKSRYB105K6R3
 C 2612 (B,159,118) CKSRYB474K10
 C 2613 (B,167,117) CCSRCH471J50
 C 2614 (B,164,114) CCSRCH680J50

C 2470 (A,127,95) CCSRCH100D50
 C 2471 (B,147,83) CKSRYB104K16
 C 2472 (A,130,115) CCSRCH100D50
 C 2473 (B,148,86) CKSRYB104K16
 C 2474 (A,127,97) CCSRCH100D50

C 2615 (B,159,117) CKSRYB105K6R3
 C 2616 (B,167,115) CKSRYB105K6R3
 C 2617 (B,121,95) CKSRYB104K16
 C 2618 (B,119,111) CKSRYF104Z25
 C 2621 (B,32,121) CKSSYF104Z16

C 2475 (A,129,118) CCSRCH100D50
 C 2476 (A,127,100) CCSRCH100D50
 C 2477 (B,136,104) CKSRYB105K6R3
 C 2478 (B,136,115) CKSRYB105K6R3
 C 2479 (A,158,88) CEVW101M16

C 2637 (B,115,103) CKSQYB105K10
 C 2704 (B,33,13) CKSRYB104K16
 C 2705 (B,40,26) CKSRYB103K50
 C 2706 (B,36,20) CKSRYB104K16
 C 2707 (B,42,30) CKSRYF104Z25

C 2480 (A,124,102) CEVW100M16
 C 2481 (A,150,88) CEVW101M16
 C 2482 (B,155,82) CKSRYB222K50
 C 2483 (B,137,100) 10μF CCG1138
 C 2484 (B,140,103) CKSRYB105K6R3

C 2708 (B,40,20) CKSRYB104K16
 C 2709 (A,36,20) CKSRYB104K16
 C 2710 (A,39,20) (EW) CKSRB104K16
 C 2711 (B,40,88) CKSRYF104Z25
 C 2712 (B,36,103) CKSRYB102K50

C 2485 (B,141,118) 10μF CCG1138
 C 2486 (B,140,115) CKSRYB105K6R3
 C 2487 (B,143,104) CCSRCH101J50
 C 2488 (B,143,114) CCSRCH101J50
 C 2489 (B,133,100) CKSRYB104K16

C 2713 (A,43,20) (EW) CKSRB104K16
 C 7007 (A,68,114) CKSRYF104Z25
 C 7014 (B,117,132) CKSYB106K6R3
 C 7015 (B,121,129) CKSYB106K6R3
 C 7017 (B,115,126) CCSRCK1R0C50

E C 2490 (B,148,104) CCSRCH101J50
 C 2491 (B,149,114) CCSRCH101J50
 C 2492 (B,151,108) CKSRYB104K16
 C 2493 (A,154,104) CEVW100M16
 C 2494 (B,34,125) CKSRYB105K10

C 7018 (B,121,120) CKSRYB105K10
 C 7019 (B,112,120) CKSYF106Z10
 C 7020 (B,114,119) CKSRYB104K16
 C 7021 (A,125,123) CCSRCH102J50
 C 7078 (B,85,114) CKSRYB104K16

C 2495 (B,29,140) CKSRYB105K10
 C 2496 (B,34,127) CKSRYB105K10
 C 2497 (B,31,140) CKSRYB105K10
 C 2498 (B,30,138) CKSRYB105K10
 C 2499 (B,38,126) CKSRYB105K10

C 7092 (B,91,115) CKSRYB104K16

Mother Tuner Unit**Consists of****Relay PCB****Mother PCB****Connector PCB**

F C 2500 (B,33,138) CKSRYB105K10
 C 2501 (B,37,126) CKSRYB105K10
 C 2503 (A,65,125) 2200μF/16V CCH1405
 C 2504 (A,72,131) 10μF CCG1138
 C 2505 (B,42,139) CKSRYB104K25

Circuit Symbol and No.**Part No.****Circuit Symbol and No.****Part No.**

D 1602 (B,110,102) Diode

DAN202U

L 1405 (A,56,92) Inductor

LCYA1R0J2520

D 1821 (A,9,121) Diode S1G-6904G2P

L 1406 (B,59,61) Inductor

LCTAW1R0J2520

D 1822 (A,12,125) Diode UDZS18(B)

L 1501 (A,81,58) Inductor

LCYA100J2520

D 1823 (A,14,125) Diode UDZS18(B)

L 1551 (B,82,55) Inductor

LCTAW101J2520

D 1824 (A,19,115) Diode 1SS355

L 1552 (B,90,52) Inductor

LCTAW100J2520

D 1871 (B,140,87) Diode UDZS5R6(B)

L 1553 (B,103,41) Inductor

LCTAW100J2520

D 1881 (B,10,115) Diode UDZS18(B)

L 1554 (B,75,62) Inductor

LCTAW100J2520

D 1882 (A,58,116) Diode 1SS355

L 1555 (B,83,58) Inductor

LCTAW100J2520

D 1883 (B,10,126) Diode UDZS6R8(B)

L 1601 (A,89,80) Inductor

CTF1379

D 1884 (B,142,110) Diode RB500V-40

L 1602 (B,71,95) Inductor

CTF1379

D 1902 (B,168,42) Diode HZU9R1(B3)

L 1603 (A,98,95) Inductor

CTF1379

D 1903 (B,168,71) Diode UDZS5R6(B)

L 1604 (A,69,105) Inductor

CTF1379

D 1950 (B,105,84) Diode UDZS13(B)

L 1766 (A,80,115) Inductor

CTF1379

D 1951 (B,114,44) Diode UDZS5R6(B)

L 1821 (A,8,117) Inductor

CTF1306

D 2801 (B,26,33) Diode UDZS6R8(B)

L 1841 (A,146,114) Inductor

CTF1334

D 2802 (B,22,35) Diode UDZS6R8(B)

L 1842 (B,148,109) Inductor

CTF1334

D 2811 (B,96,36) Diode UDZS10(B)

L 1849 (B,156,116) Inductor

CTF1393

D 2812 (B,102,36) Diode UDZS10(B)

L 1850 (A,161,113) Inductor

CTF1334

D 2813 (B,76,28) Diode UDZS5R6(B)

L 1851 (B,150,100) Inductor

CTF1334

D 2814 (B,76,26) Diode UDZS5R6(B)

L 1852 (B,140,108) Inductor

CTF1306

D 2886 (B,73,35) Diode S1G-6904G2P

L 1853 (B,132,100) Inductor

CTF1306

D 2887 (B,73,32) Diode S1G-6904G2P

L 1861 (B,170,106) Inductor

CTF1334

ZNR1401 (A,18,34) Surge Protector RCCA-201Q31UA-PI

L 1862 (B,170,96) Inductor

CTF1334

L 1001 (A,141,33) Inductor CTF1334

L 1871 (B,152,79) Inductor

CTF1334

L 1002 (A,142,33) Inductor CTF1334

L 1872 (A,166,90) Inductor

CTF1393

L 1003 (A,142,36) Inductor CTF1334

L 1873 (B,158,88) Inductor

CTF1393

L 1004 (A,143,36) Inductor CTF1334

L 1881 (B,10,117) Inductor

CTF1306

L 1005 (A,133,31) Inductor CTF1306

L 2811 (B,98,34) Inductor

CTF1557

L 1006 (A,135,31) Inductor CTF1306

L 2812 (B,99,22) Inductor

CTF1557

L 1007 (A,136,31) Inductor CTF1306

L 2813 (B,42,19) Inductor

CTF1334

L 1008 (A,136,33) Inductor CTF1306

L 2814 (B,41,17) Inductor

CTF1334

L 1009 (A,116,21) Inductor CTF1306

L 2831 (A,36,16) Inductor

CTF1306

L 1010 (A,118,21) Inductor CTF1306

L 2832 (A,20,22) Inductor

CTF1306

L 1011 (A,118,25) Inductor CTF1306

L 2833 (A,23,21) Inductor

CTF1306

L 1012 (A,117,28) Inductor CTF1306

L 2834 (A,33,20) Inductor

CTF1306

L 1013 (A,121,30) Inductor CTF1334

L 2835 (A,23,23) Inductor

CTF1306

L 1014 (A,122,30) Inductor CTF1334

L 2836 (A,21,21) Inductor

CTF1306

L 1015 (A,124,30) Inductor CTF1334

L 2851 (B,71,21) Inductor

CTF1334

L 1016 (A,123,22) Inductor CTF1382

L 2852 (B,75,21) Inductor

CTF1334

L 1017 (A,127,21) Inductor CTF1334

L 2853 (B,79,20) Inductor

CTF1334

L 1018 (A,127,26) Inductor CTF1382

L 2854 (B,71,19) Inductor

CTF1334

L 1019 (A,128,26) Inductor CTF1382

L 2855 (B,75,19) Inductor

CTF1334

L 1020 (A,130,29) Inductor CTF1334

L 2856 (B,79,18) Inductor

CTF1334

L 1021 (A,132,34) Inductor CTF1334

L 2857 (B,88,11) Inductor

CTF1334

L 1022 (A,128,21) Inductor CTF1334

L 2859 (A,93,17) Inductor

CTF1334

L 1026 (B,122,41) Inductor CTF1399

L 2861 (B,75,23) Inductor

CTF1334

L 1101 (A,105,108) Inductor LCYA2R2J2520

L 2862 (B,82,28) Inductor

CTF1334

L 1102 (A,112,118) Inductor CTF1334

L 2886 (B,82,25) Inductor

CTF1295

L 1103 (A,113,118) Inductor CTF1334

X 1601 (A,86,114) Radiator 12.58MHz

CSS1601

L 1104 (A,117,118) Inductor CTF1334

VR1551 (A,96,48) Semi-fixed 10kΩ(B)

CCP1448

L 1105 (A,115,118) Inductor CTF1334

△FU1202 (A,44,118) Fuse 4A

CEK1288

L 1201 (A,35,113) Inductor CTF1399

△FU1703 (A,86,122) Fuse 4A

CEK1288

L 1301 (B,82,26) Inductor CTF1399

△FU1704 (A,68,124) Fuse 4A

CEK1288

L 1302 (B,90,18) Inductor CTF1334

△FU1951 (A,118,87) Fuse 2A

CEK1284

L 1303 (B,86,12) Inductor CTF1334

△FU2801 (A,24,20) Fuse 5A

CEK1289

L 1304 (B,103,18) Inductor CTF1334

Y 1401 (A,46,44) FM/AM Tuner Unit

CWE1651

L 1305 (B,101,12) Inductor CTF1334

GY1863 (A,169,113) Sensor

CSX1078

L 1351 (A,67,21) Inductor CTF1399

GY1865 (A,167,101) Sensor

CSX1074

L 1401 (B,40,45) Inductor LCTAW4R7J2520

EF1001 (A,139,32) EMI Filter

CCG1082

L 1403 (B,51,79) Inductor LCTAW1R0J2520

EF1201 (A,30,131) EMI Filter

CCG1067

<u>Circuit Symbol and No.</u>	<u>Part No.</u>
EF1301 (A,74,17) EMI Filter	CCG1067
EF1351 (A,52,10) EMI Filter	CCG1067
EF1701 (A,91,125) EMI Filter	CCG1067
EF1901 (A,157,29) EMI Filter	CCG1172
EF1902 (A,146,39) EMI Filter	CCG1172
EF1903 (A,152,39) EMI Filter	CCG1172
EF2801 (A,70,32) EMI Filter	CCG1067

RESISTORS

R 1001 (B,127,31)	RS1/16S750J
R 1004 (A,128,37)	RS1/16S472J
R 1005 (A,129,38)	RS1/16S472J
R 1006 (A,126,43)	RS1/16S512J
R 1007 (A,125,42)	RS1/16S102J
R 1008 (A,123,38)	RS1/16S101J
R 1009 (A,125,39)	RS1/16S512J
R 1010 (A,111,32)	RS1/16S101J
R 1011 (A,111,28)	RS1/16S101J
R 1012 (A,109,30)	RS1/16S223J
R 1013 (A,109,29)	RS1/16S223J
R 1014 (A,109,32)	RS1/16S102J
R 1015 (A,109,27)	RS1/16S102J
R 1016 (A,129,48)	RS1/16S563J
R 1017 (A,126,49)	RS1/16S473J
R 1102 (A,101,112)	RS1/16S102J
R 1104 (A,104,123)	RS1/10S101J
R 1105 (A,102,123)	RS1/10S101J
R 1106 (A,103,126)	RS1/10S620J
R 1107 (A,113,115)	RS1/16S102J
R 1108 (A,115,115)	RS1/16S102J
R 1109 (B,112,116)	RS1/16S223J
R 1110 (B,116,116)	RS1/16S223J
R 1111 (A,111,115)	RS1/16S101J
R 1112 (A,117,115)	RS1/16S101J
R 1113 (A,120,112)	RS1/16S332J
R 1114 (A,120,111)	RS1/16S682J
R 1115 (A,120,119)	RS1/10S222J
R 1118 (A,101,111)	RS1/16S0R0J
R 1119 (A,101,109)	RS1/16S0R0J
R 1201 (A,135,36)	RS1/16S473J
R 1202 (A,29,117)	RS1/16S563J
R 1203 (A,29,114)	RS1/16S473J
R 1204 (A,136,38)	RS1/16S473J
R 1205 (A,138,42)	RS1/16S473J
R 1206 (A,138,39)	RS1/16S473J
R 1207 (A,136,48)	RS1/16S473J
R 1208 (B,29,118)	RS1/16S512J
R 1209 (B,31,118)	RS1/16S102J
R 1210 (B,35,119)	RS1/16S101J
R 1211 (B,33,121)	RS1/16S512J
R 1212 (A,31,123)	RS1/16S472J
R 1213 (A,34,123)	RS1/16S472J
R 1214 (B,55,126)	RS1/16S0R0J
R 1215 (B,57,127)	RS1/16S0R0J
R 1216 (B,43,124)	RS1/16S0R0J
R 1217 (B,49,124)	RS1/16S0R0J
R 1218 (B,30,129)	RS1/16S103J
R 1219 (B,32,133)	RS1/16S103J
R 1220 (A,33,128)	RS1/16S750J

<u>Circuit Symbol and No.</u>	<u>Part No.</u>
R 1301 (A,82,21)	RS1/16S563J
R 1302 (A,80,18)	RS1/16S473J
R 1303 (A,85,17)	RS1/16S102J
R 1304 (A,99,17)	RS1/16S102J
R 1305 (B,86,16)	RS1/16S223J
R 1306 (B,100,15)	RS1/16S223J
R 1307 (B,88,18)	RS1/16S101J
R 1308 (B,100,19)	RS1/16S101J
R 1309 (B,77,20)	RS1/16S512J
R 1310 (B,81,20)	RS1/16S102J
R 1311 (A,75,25)	RS1/16S101J
R 1312 (B,78,23)	RS1/16S512J
R 1313 (A,72,20)	RS1/16S472J
R 1314 (A,72,23)	RS1/16S472J
R 1315 (A,72,17)	RS1/16S103J
R 1316 (B,78,14)	RS1/16S103J
R 1317 (B,75,17)	RS1/16S750J
R 1351 (A,65,11)	RS1/16S563J
R 1352 (A,66,8)	RS1/16S473J
R 1357 (B,61,10)	RS1/16S512J
R 1358 (B,65,10)	RS1/16S102J
R 1359 (A,58,15)	RS1/16S101J
R 1360 (B,62,13)	RS1/16S512J
R 1363 (A,56,10)	RS1/16S472J
R 1364 (A,56,13)	RS1/16S472J
R 1365 (B,52,10)	RS1/16S103J
R 1366 (B,51,12)	RS1/16S103J
R 1367 (A,53,12)	RS1/16S750J
R 1402 (B,47,110)	RS1/16S0R0J
R 1403 (B,49,102)	RS1/16S0R0J
R 1404 (B,49,59)	RS1/16S681J
R 1405 (B,49,56)	RS1/16S681J
R 1407 (A,56,106)	RS1/16S103J
R 1408 (A,58,106)	RS1/16S103J
R 1409 (A,52,111)	RS1/16S273J
R 1410 (B,53,102)	RS1/16S273J
R 1412 (A,56,110)	RS1/16S183J
R 1413 (A,56,108)	RS1/16S183J
R 1415 (B,51,107)	RS1/16S753J
R 1416 (B,53,109)	RS1/16S753J
R 1426 (B,49,81)	RS1/16S681J
R 1428 (B,49,54)	RS1/16S681J
R 1429 (B,49,64)	RS1/16S681J
R 1431 (B,49,61)	RS1/16S681J
R 1434 (B,41,48)	RS1/4S0R0J
R 1501 (A,63,35)	RS1/16S0R0J
R 1502 (A,61,34)	RS1/16S0R0J
R 1505 (A,91,30)	RS1/16S562J
R 1506 (A,88,26)	RS1/16S562J
R 1507 (A,91,34)	RS1/16S562J
R 1508 (A,91,35)	RS1/16S562J
R 1509 (A,91,40)	RS1/16S562J
R 1510 (A,91,41)	RS1/16S562J
R 1511 (A,85,47)	RS1/16S101J
R 1512 (A,86,47)	RS1/16S101J
R 1551 (B,69,34)	RS1/16S0R0J
R 1552 (B,69,32)	RS1/16S0R0J
R 1553 (B,76,44)	RS1/16S182J
R 1554 (B,72,42)	RS1/16S182J
R 1555 (B,78,47)	RS1/16S102J

Circuit Symbol and No.**Part No.****Circuit Symbol and No.****Part No.**

A	R 1556	(B,70,39)	RS1/16S102J	R 1638	(B,71,97)	RS1/16S104J
	R 1557	(B,91,45)	RS1/16S103J	R 1640	(B,79,109)	RS1/16S681J
	R 1558	(B,76,57)	RS1/16S123J	R 1641	(A,92,114)	RS1/16S681J
	R 1559	(B,97,50)	RS1/16S123J	R 1642	(B,86,111)	RS1/16S473J
	R 1560	(B,72,58)	RS1/16S103J	R 1643	(B,72,108)	RS1/16S473J
■	R 1561	(B,72,35)	RS1/16S473J	R 1644	(B,80,111)	RS1/16S473J
	R 1562	(B,72,31)	RS1/16S473J	R 1647	(B,76,109)	RS1/16S473J
	R 1563	(B,69,50)	RS1/16S471J	R 1651	(B,77,116)	RS1/16S473J
	R 1564	(B,69,47)	RS1/16S471J	R 1652	(B,79,116)	RS1/16S473J
	R 1565	(B,72,56)	RS1/16S471J	R 1657	(B,72,110)	RS1/16S473J
B	R 1566	(B,98,47)	RS1/16S471J	R 1658	(B,72,112)	RS1/16S473J
	R 1567	(A,64,53)	RS1/16S821J	R 1659	(A,82,79)	RS1/16S473J
	R 1568	(A,69,53)	RS1/16S821J	R 1661	(A,90,85)	RS1/16S681J
	R 1569	(B,75,34)	RS1/16S821J	R 1662	(A,87,85)	RS1/16S681J
	R 1570	(B,75,32)	RS1/16S821J	R 1663	(B,88,88)	RS1/16S681J
■	R 1571	(B,70,53)	RS1/16S104J	R 1664	(A,88,85)	RS1/16S681J
	R 1572	(B,65,53)	RS1/16S104J	R 1821	(A,21,122)	RS1/16S0R0J
	R 1573	(A,108,39)	RS1/16S750J	R 1822	(B,14,123)	RS1/16S333J
	R 1574	(A,67,55)	RS1/16S105J	R 1823	(A,12,121)	RS1/16S203J
	R 1575	(A,65,68)	RS1/16S750J	R 1824	(A,20,117)	RS1/16S822J
C	R 1576	(A,70,68)	RS1/16S0R0J	R 1825	(A,19,113)	RS1/16S202J
	R 1580	(B,98,43)	RS1/16S105J	R 1826	(A,16,115)	RS1/16S564J
	R 1581	(B,55,85)	RS1/4S821J	R 1827	(A,17,117)	RS1/16S513J
	R 1582	(B,56,90)	RS1/16S223J	R 1828	(A,14,119)	RS1/16S513J
	R 1583	(B,62,89)	RS1/16S473J	R 1829	(B,24,118)	RS1/16S102J
■	R 1584	(B,59,89)	RS1/16S223J	R 1830	(B,22,117)	RS1/16S102J
	R 1585	(B,70,90)	RS1/16S563J	R 1831	(B,21,122)	RS1/16S104J
	R 1586	(B,69,86)	RS1/16S223J	R 1832	(B,21,126)	RS1/16S513J
	R 1587	(B,62,84)	RS1/16S473J	R 1833	(B,16,127)	RS1/16S473J
	R 1588	(A,70,86)	RS1/16S101J	R 1834	(B,18,127)	RS1/16S563J
D	R 1601	(B,115,105)	RS1/16S272J	R 1835	(A,20,128)	RS1/16S104J
	R 1602	(B,117,101)	RS1/16S101J	R 1841	(A,160,110)	RS1/16S104J
	R 1603	(B,107,102)	RS1/16S333J	R 1843	(B,144,108)	RS1/16S101J
	R 1604	(B,113,105)	RS1/16S473J	R 1861	(B,165,122)	RS1/10S105J
	R 1607	(A,90,81)	RS1/16S104J	R 1862	(B,164,115)	RS1/10S151J
■	R 1610	(A,94,83)	RS1/16S681J	R 1871	(B,146,79)	RS1/10S103J
	R 1611	(A,100,87)	RS1/16S681J	R 1872	(B,149,82)	RS1/10S103J
	R 1612	(A,84,85)	RAB4C681J	R 1873	(B,143,84)	RN1/16SE1001D
	R 1613	(B,97,109)	RS1/16S472J	R 1874	(B,139,84)	RN1/16SE1101D
	R 1614	(A,94,89)	RS1/16S681J	R 1875	(B,140,89)	RN1/16SE1001D
E	R 1615	(A,80,86)	RS1/16S473J	R 1881	(B,10,120)	RS1/4S102J
	R 1617	(A,73,90)	RS1/16S681J	R 1901	(A,78,74)	RS1/16S102J
	R 1618	(A,96,92)	RAB4C681J	R 1902	(B,141,42)	RS1/16S102J
	R 1619	(A,98,88)	RS1/16S104J	R 1903	(A,78,73)	RS1/16S272J
	R 1621	(A,75,82)	RS1/16S470J	R 1904	(B,144,43)	RS1/16S272J
■	R 1622	(A,76,82)	RS1/16S470J	R 1905	(B,160,33)	RS1/16S153J
	R 1623	(A,76,86)	RS1/16S103J	R 1906	(B,157,33)	RS1/4S102J
	R 1624	(A,76,84)	RS1/16S103J	R 1907	(B,175,41)	RS1/10S271J
	R 1625	(A,96,98)	RAB4C681J	R 1908	(B,175,63)	RS1/10S221J
	R 1626	(A,72,99)	RAB4C681J	R 1909	(B,175,45)	RS1/10S271J
F	R 1627	(B,70,92)	RS1/16S563J	R 1910	(A,167,59)	RS1/10S271J
	R 1629	(A,96,102)	RAB4C681J	R 1911	(B,175,72)	RS1/16S122J
	R 1630	(A,96,104)	RS1/16S473J	R 1912	(B,160,58)	RS1/16S0R0J
	R 1631	(A,97,107)	RAB4C681J	R 1950	(B,111,90)	RS1/4S471J
	R 1632	(A,67,112)	RS1/16S473J	R 1951	(B,169,65)	RS1/16S432J
■	R 1633	(A,67,107)	RS1/16S473J	R 1952	(B,169,64)	RS1/16S222J
	R 1634	(A,72,109)	RAB4C681J	R 1953	(B,170,61)	RS1/16S223J
	R 1635	(A,97,111)	RAB4C681J	R 1954	(B,109,41)	RS1/16S122J
	R 1636	(A,92,122)	RS1/16S473J	R 2831	(A,38,17)	RS1/16S820J
	R 1637	(B,97,118)	RS1/16S473J	R 2832	(A,38,10)	RS1/16S820J

D

CAPACITORS

F

Circuit Symbol and No.**Part No.****Circuit Symbol and No.****Part No.**

C 1442 (A,53,60)

CEVW221M16

C 1623 (B,111,105)

CKSRYB103K50

C 1501 (A,62,30)

CKSQYB105K16

C 1821 (A,11,118)

CKSRYB823K16

C 1504 (A,79,25)

CKSQYB105K16

C 1822 (B,17,124)

CKSRYB104K25

C 1505 (A,95,29)

CKSQYB105K16

C 1823 (B,17,122)

CKSRYB103K50

C 1506 (A,90,28)

CKSQYB105K16

C 1824 (A,14,117)

CKSRYB104K16

C 1507 (A,60,47)

CKSQYB105K16

C 1825 (B,23,122)

CKSRYB102K50

C 1508 (A,60,45)

CKSQYB105K16

C 1826 (A,21,119)

CKSRYF104Z25

C 1509 (A,91,32)

CKSQYB105K16

C 1862 (B,161,122)

CKSRYB103K50

C 1510 (A,95,35)

CKSQYB105K16

C 1863 (B,163,111)

CKSYB106K6R3

C 1511 (A,95,37)

CKSQYB105K16

C 1864 (B,168,98)

CKSRYB104K25

C 1512 (A,94,41)

CKSQYB105K16

C 1865 (A,166,94)

CCSRCH102J50

C 1513 (A,90,44)

CKSQYB105K16

C 1866 (A,173,96)

CKSRYB104K16

C 1514 (A,92,44)

CKSQYB105K16

C 1867 (A,174,107)

CKSRYB105K10

C 1515 (A,78,47)

CKSRYB103K50

C 1871 (B,161,87)

CKSRYF103Z50

C 1516 (A,82,52)

CEVW220M16

C 1872 (A,146,77)

CKSRYB104K25

C 1517 (A,61,40)

CEVW100M16

C 1873 (A,147,77)

CKSRYB334K10

C 1551 (B,91,43)

CCSRCH7R0D50

C 1874 (A,163,90)

CKSRYF103Z50

C 1552 (B,79,35)

CKSRYB222K50

C 1875 (A,153,79)

CEVW101M16

C 1553 (B,79,31)

CKSRYB222K50

C 1876 (A,140,78)

CEVW470M16

C 1554 (B,76,48)

CKSRYB222K50

C 1877 (A,154,91)

CKSRYB104K16

C 1555 (B,74,46)

CKSRYB222K50

C 1878 (A,150,88)

CKSRYF104Z25

C 1556 (B,76,56)

CCSRCJ3R0C50

C 1879 (A,156,91)

CKSRYB474K10

C 1557 (A,92,54)

CEVW101M16

C 1880 (A,144,77)

CKSRYB104K25

C 1558 (B,77,52)

CKSRYB103K50

C 1881 (B,10,123)

CKSRYB104K25

C 1559 (B,75,36)

CKSQYB225K10

C 1882 (A,146,88)

CEVW470M16

C 1560 (B,75,30)

CKSQYB225K10

C 1901 (A,158,36)

CEVW101M16

C 1561 (A,70,49)

CEVW100M16

C 1902 (A,145,46)

CEVW101M16

C 1562 (A,65,49)

CEVW100M16

C 1903 (A,78,80)

CKSRYB104K16

C 1563 (B,96,45)

CKSYB475K16

C 1904 (B,132,41)

CKSRYB104K25

C 1564 (A,71,56)

CKSYB475K16

C 1905 (A,143,40)

CKSRYB103K50

C 1565 (A,98,40)

CKSRYB103K50

C 1906 (A,161,30)

CKSRYB103K50

C 1566 (A,74,60)

CKSRYB103K50

C 1907 (B,170,34)

CKSRYB103K50

C 1567 (A,103,35)

CEVW470M16

C 1908 (A,166,31)

CEVW101M16

C 1568 (A,75,65)

CEVW470M16

C 1910 (A,166,45)

CEVW101M16

C 1569 (A,102,48)

CEVW330M10

C 1911 (B,168,61)

CKSRYB104K25

C 1570 (A,103,42)

CEVW101M4

C 1912 (B,169,44)

CKSRYB103K50

C 1571 (A,63,64)

CEVW330M10

C 1913 (B,170,56)

CKSRYB103K50

C 1572 (A,69,64)

CEVW101M4

C 1914 (B,169,39)

CKSRYB103K50

C 1575 (B,80,47)

CKSRYB104K25

C 1915 (A,166,53)

CEVW101M16

C 1576 (B,67,42)

CKSRYB104K25

C 1916 (A,166,38)

CEVW101M16

C 1577 (A,76,51)

CEVW101M16

C 1917 (A,155,46)

CEVW101M16

C 1580 (A,61,88) 22μF

CCG1183

C 1918 (A,155,41)

CKSRYB103K50

C 1601 (B,119,101)

CKSRYB103K50

C 1919 (A,165,74)

CEVW101M16

C 1602 (A,81,82)

CKSRYB104K16

C 1920 (B,169,73)

CKSRYB103K50

C 1603 (A,91,120)

CKSRYB103K50

C 1921 (B,169,69)

CKSRYB103K50

C 1604 (A,84,76)

CEVW100M16

C 1922 (A,173,84)

CKSRYB104K16

C 1605 (A,87,79)

CKSRYB103K50

C 1923 (A,166,65)

CEVW470M16

C 1606 (A,94,120)

CKSRYB222K50

C 1924 (A,173,86)

CKSRYB103K50

C 1607 (A,87,81)

CKSRYB103K50

C 1925 (A,172,91)

CEVW220M16

C 1610 (A,73,93)

CKSRYB102K50

C 1950 (A,122,94)

CEVW101M16

C 1611 (A,95,95)

CKSRYB102K50

C 1951 (B,108,85)

CKSRYB103K50

C 1612 (A,72,106)

CKSRYB102K50

C 1952 (B,115,86)

CKSRYB103K50

C 1613 (A,82,113)

CKSRYB102K50

C 1953 (A,127,87)

CEVW101M16

C 1614 (B,84,111)

CKSRYB105K10

C 1954 (A,113,39)

CEVW101M16

C 1615 (A,90,115)

CKSRYB103K50

C 1955 (B,112,44)

CKSRYB103K50

C 1616 (A,70,93)

CKSRYB104K16

C 1956 (B,104,44)

CKSRYB103K50

C 1619 (A,102,90)

CKSRYB104K16

C 1957 (A,111,47)

CEVW101M16

C 1620 (A,96,86)

CKSRYB104K16

C 2813 (B,23,31)

CKSRYF104Z25

C 1621 (A,94,117)

CKSRYB104K16

C 2814 (B,18,32)

CKSRYF104Z25

C 1622 (B,112,98)

CKSRYB103K50

C 2831 (A,38,20)

CEVW100M16

<u>Circuit Symbol and No.</u>		<u>Part No.</u>	<u>Circuit Symbol and No.</u>		<u>Part No.</u>
C 2832	(A,39,13)	CEVW100M16	Q 1402	(B,51,41) Transistor	2SC3127
C 2833	(B,42,15)	CKSRYB222K50	Q 1403	(B,67,106) Transistor	DTC124EU
C 2834	(B,44,6)	CKSRYB222K50	Q 1404	(B,67,103) Transistor	DTC124EU
C 2837	(A,44,7)	CEVW100M16	Q 1405	(B,82,86) Transistor	DTC124EU
C 2838	(A,29,20)	CEVW100M16	Q 1406	(B,67,99) Transistor	DTC124EU
C 2839	(B,35,5)	CKSRYB222K50	Q 1551	(B,80,44) Transistor	2SA1576
C 2840	(B,33,15)	CKSRYB222K50	Q 1552	(B,67,39) Transistor	2SA1576
C 2843	(A,29,13)	CEVW100M16	Q 1555	(B,73,51) Transistor	2SC2412K
C 2844	(A,34,7)	CEVW100M16	Q 1556	(B,71,46) Transistor	2SC2412K
C 2845	(B,28,15)	CKSRYB222K50	Q 1557	(A,76,57) Transistor	2SC2412K
C 2846	(B,28,5)	CKSRYB222K50	Q 1558	(B,92,48) Transistor	2SC2412K
C 2849	(A,92,24)	CKSSYB102K50	Q 1559	(B,63,50) Transistor	FMG12
C 2851	(B,23,33)	CKSRYF103Z50	Q 1581	(B,59,85) Transistor	2SA1037K
C 2879	(A,96,21)	CEVW470M16	Q 1582	(B,59,91) Transistor	2SC4081
C 2880	(A,73,40)	CKSRYF104Z25	Q 1583	(B,65,88) Transistor	2SC4081
C 2886	(B,89,25)	CKSRYF104Z25	Q 1601	(B,114,101) Transistor	2SC2412K
C 2887	(B,20,32)	CKSRYF104Z25	Q 1607	(A,68,109) Transistor	2SC4081

Mother Tuner Unit**Consists of****Relay PCB****Mother PCB****Connector PCB****JKL****Unit Number:CWM9945(AVIC-X1R/XU/EW)****Unit Name:Mother Tuner Unit****MISCELLANEOUS**

IC 1001	(A,129,43) IC	NJM2137V	Q 1902	(B,136,42) Transistor	2SA1036K
IC 1002	(B,106,27) IC	TA2050FS1	Q 1903	(A,81,71) Transistor	DTC114EK
IC 1101	(A,105,116) IC	HA12240FP	Q 1904	(B,146,41) Transistor	DTC114EK
IC 1102	(A,113,109) IC	TA2050FS1	Q 1905	(B,165,34) Transistor	2SB1260
IC 1201	(A,31,118) IC	NJM2137V	Q 1906	(B,158,39) Transistor	DTC114EK
IC 1301	(B,92,25) IC	TA2050FS1	Q 1907	(A,172,61) Transistor	2SB1629
IC 1302	(A,77,21) IC	NJM2137V	Q 1908	(A,173,42) Transistor	2SD2396
IC 1352	(A,61,11) IC	NJM2137V	Q 1909	(A,173,72) Transistor	2SD2396
IC 1401	(A,53,79) IC	NJM2391DL1-33	Q 1951	(B,111,85) Transistor	2SD2098
IC 1402	(A,51,107) IC	NJM4558E	Q 1952	(B,109,45) Transistor	2SD2098
IC 1501	(A,76,36) IC	CXA2069Q	Q 2801	(A,90,25) Transistor	2SC4081
IC 1551	(A,97,43) IC	NJM2561F1	Q 2831	(B,39,12) Transistor	DTC323TU
IC 1552	(A,71,58) IC	NJM2561F1	Q 2832	(B,41,8) Transistor	DTC323TU
IC 1601	(A,83,81) IC	TC7SH04FUS1	Q 2833	(B,32,8) Transistor	DTC323TU
IC 1603	(A,83,100) IC	PE5411B	Q 2844	(B,34,12) Transistor	DTC323TU
IC 1604	(A,94,87) IC	TC7SH08FUS1	Q 2845	(B,29,12) Transistor	DTC323TU
IC 1605	(A,100,90) IC	TC7SH08FUS1	Q 2846	(B,27,8) Transistor	DTC323TU
IC 1607	(A,92,117) IC	TC7SH08FUS1	Q 2886	(B,87,26) Transistor	2SC4081
IC 1608	(A,71,95) IC	TC7SH04FUS1	D 1001	(B,138,10) Diode	UDZS6R8(B)
IC 1821	(A,18,123) IC	NJM2904M	D 1002	(B,138,17) Diode	UDZS6R8(B)
IC 1871	(A,146,80) IC	S-812C33AMC-C2N	D 1003	(B,140,11) Diode	UDZS6R8(B)
IC 1872	(A,153,88) IC	S-L2980A50MC-C7J	D 1004	(B,135,15) Diode	UDZS6R8(B)
IC 1901	(A,166,84) IC	NJM2391DL1-33	D 1005	(B,136,9) Diode	UDZS6R8(B)
IC 1902	(B,164,61) IC	M5237ML	D 1006	(B,140,17) Diode	UDZS6R8(B)
Q 1101	(A,121,108) Transistor	DTC124EU	D 1007	(B,133,15) Diode	UDZS6R8(B)
Q 1102	(A,120,115) Transistor	2SA1576	D 1008	(B,133,8) Diode	UDZS6R8(B)
Q 1201	(A,135,41) Transistor	2SA1037K	D 1009	(B,131,15) Diode	UDZS6R8(B)
Q 1202	(A,136,45) Transistor	2SC2412K	D 1010	(B,131,7) Diode	UDZS6R8(B)
Q 1401	(A,38,33) Transistor	2SC3357	D 1011	(B,129,15) Diode	UDZS6R8(B)
			D 1012	(B,131,23) Diode	UMZ6R8N
			D 1013	(B,135,22) Diode	MA153
			D 1014	(B,126,23) Diode	UMZ6R8N
			D 1015	(B,123,22) Diode	UMZ6R8N
			D 1016	(B,126,16) Diode	UDZS6R8(B)

Circuit Symbol and No.**Part No.****Circuit Symbol and No.****Part No.**

D 1017 (B,126,9) Diode UDZS6R8(B)

L 1003 (A,142,36) Inductor CTF1334

D 1018 (B,124,17) Diode UDZS6R8(B)

L 1004 (A,143,36) Inductor CTF1334

D 1019 (B,122,8) Diode UMZ6R8N

L 1005 (A,133,31) Inductor CTF1306

D 1020 (B,118,9) Diode UMZ6R8N

L 1006 (A,135,31) Inductor CTF1306

D 1021 (B,121,18) Diode UMZ6R8N

L 1007 (A,136,31) Inductor CTF1306

D 1022 (B,117,17) Diode UMZ6R8N

L 1008 (A,136,33) Inductor CTF1306

D 1023 (B,128,9) Diode UDZS6R8(B)

L 1009 (A,116,21) Inductor CTF1306

D 1101 (B,116,119) Diode UMZ6R8N

L 1010 (A,118,21) Inductor CTF1306

D 1102 (B,115,132) Diode UMZ6R8N

L 1011 (A,118,25) Inductor CTF1306

D 1103 (B,105,129) Diode DAN202U

L 1012 (A,117,28) Inductor CTF1306

D 1104 (B,105,133) Diode DAP202U

L 1013 (A,121,30) Inductor CTF1334

D 1201 (A,138,35) Diode 1SS355

L 1014 (A,122,30) Inductor CTF1334

D 1202 (A,137,49) Diode 1SS355

L 1015 (A,124,30) Inductor CTF1334

D 1203 (A,54,124) Diode HZU12(B2)

L 1016 (A,123,22) Inductor CTF1382

D 1204 (A,56,124) Diode HZU12(B2)

L 1017 (A,127,21) Inductor CTF1334

D 1205 (A,43,124) Diode HZU12(B2)

L 1018 (A,127,26) Inductor CTF1382

D 1206 (A,49,124) Diode HZU12(B2)

L 1019 (A,128,26) Inductor CTF1382

D 1207 (A,32,131) Diode UMZ6R8N

L 1020 (A,130,29) Inductor CTF1334

D 1208 (A,35,131) Diode UMZ6R8N

L 1021 (A,132,34) Inductor CTF1334

D 1301 (B,108,19) Diode UMZ6R8N

L 1022 (A,128,21) Inductor CTF1334

D 1302 (B,93,14) Diode UMZ6R8N

L 1026 (B,122,41) Inductor CTF1399

D 1303 (B,70,12) Diode UMZ6R8N

L 1101 (A,105,108) Inductor LCYA2R2J2520

D 1304 (B,70,15) Diode UMZ6R8N

L 1102 (A,112,118) Inductor CTF1334

D 1353 (B,50,8) Diode UMZ6R8N

L 1103 (A,113,118) Inductor CTF1334

D 1354 (B,48,16) Diode UMZ6R8N

L 1104 (A,117,118) Inductor CTF1334

D 1401 (A,51,73) Diode 1SR154-400

L 1105 (A,115,118) Inductor CTF1334

D 1402 (A,51,70) Diode 1SR154-400

L 1201 (A,35,113) Inductor CTF1399

D 1403 (A,52,66) Diode 1SR154-400

L 1301 (B,82,26) Inductor CTF1399

D 1551 (B,101,46) Diode MA153

L 1302 (B,90,18) Inductor CTF1334

D 1552 (B,69,61) Diode MA153

L 1303 (B,86,12) Inductor CTF1334

D 1553 (A,60,54) Diode DAP202U

L 1304 (B,103,18) Inductor CTF1334

D 1580 (A,70,89) Diode MA111

L 1305 (B,101,12) Inductor CTF1334

D 1581 (B,64,92) Diode DAN202U

L 1351 (A,67,21) Inductor CTF1399

D 1582 (B,67,84) Diode UDZS8R2(B)

L 1401 (B,40,45) Inductor LCTAW4R7J2520

D 1602 (B,110,102) Diode DAN202U

L 1402 (A,28,33) Inductor LCYAR12J2520

D 1801 (B,124,76) Diode HZU3R3(B1)

L 1403 (B,51,79) Inductor LCTAW1R0J2520

D 1821 (A,9,121) Diode S1G-6904G2P

L 1404 (A,32,36) Inductor LCTCR10K2125

D 1822 (A,12,125) Diode UDZS18(B)

L 1405 (A,56,92) Inductor LCYA1R0J2520

D 1823 (A,14,125) Diode UDZS18(B)

L 1406 (B,59,61) Inductor LCTAW1R0J2520

D 1824 (A,19,115) Diode 1SS355

L 1407 (A,44,34) Coil CTC1143

D 1871 (B,140,87) Diode UDZS5R6(B)

L 1408 (B,51,51) Inductor LCTCR10K2125

D 1881 (B,10,115) Diode UDZS18(B)

L 1409 (B,55,44) Inductor LCTCR18K2125

D 1882 (A,58,116) Diode 1SS355

L 1410 (B,55,52) Inductor LCTAW101J2520

D 1883 (B,10,126) Diode UDZS6R8(B)

L 1411 (A,39,27) Coil CTC1142

D 1884 (B,142,110) Diode RB500V-40

L 1412 (B,38,23) Inductor LCTAW101J2520

D 1902 (B,168,42) Diode HZU9R1(B3)

L 1413 (A,49,26) Coil CTC1139

D 1903 (B,168,71) Diode UDZS5R6(B)

L 1501 (A,81,58) Inductor LCYA100J2520

D 1950 (B,105,84) Diode UDZS13(B)

L 1551 (B,82,55) Inductor LCTAW101J2520

D 1951 (B,114,44) Diode UDZS5R6(B)

L 1552 (B,90,52) Inductor LCTAW100J2520

D 2801 (B,26,33) Diode UDZS6R8(B)

L 1553 (B,103,41) Inductor LCTAW100J2520

D 2802 (B,22,35) Diode UDZS6R8(B)

L 1554 (B,75,62) Inductor LCTAW100J2520

D 2811 (B,96,36) Diode UDZS10(B)

L 1555 (B,83,58) Inductor LCTAW100J2520

D 2812 (B,102,36) Diode UDZS10(B)

L 1601 (A,89,80) Inductor CTF1379

D 2813 (B,76,28) Diode UDZS5R6(B)

L 1602 (B,71,95) Inductor CTF1379

D 2814 (B,76,26) Diode UDZS5R6(B)

L 1603 (A,98,95) Inductor CTF1379

D 2886 (B,73,35) Diode S1G-6904G2P

L 1604 (A,69,105) Inductor CTF1379

D 2887 (B,73,32) Diode S1G-6904G2P

L 1766 (A,80,115) Inductor CTF1379

ZNR1401 (A,18,34) Surge Protector RCCA-201Q31UA-PI

L 1801 (B,143,67) Inductor LCTCR22K2125

L 1001 (A,141,33) Inductor CTF1334

L 1802 (B,133,67) Inductor LCTAW1R0J2520

L 1002 (A,142,33) Inductor CTF1334

L 1803 (B,115,77) Inductor LCTAW2R2J2520

<u>Circuit Symbol and No.</u>		<u>Part No.</u>
L 1804	(B,121,73) Inductor	LCTAW1R0J2520
L 1821	(A,8,117) Inductor	CTF1306
L 1841	(A,146,114) Inductor	CTF1334
L 1842	(B,148,109) Inductor	CTF1334
L 1843	(A,147,107) Inductor	CTF1334
L 1844	(A,147,105) Inductor	CTF1334
L 1845	(B,148,106) Inductor	CTF1334
L 1846	(B,148,104) Inductor	CTF1334
L 1847	(A,147,98) Inductor	CTF1393
L 1848	(A,155,96) Inductor	CTF1393
L 1849	(B,156,116) Inductor	CTF1393
L 1850	(A,161,113) Inductor	CTF1334
L 1851	(B,150,100) Inductor	CTF1334
L 1852	(B,140,108) Inductor	CTF1306
L 1853	(B,132,100) Inductor	CTF1306
L 1861	(B,170,106) Inductor	CTF1334
L 1862	(B,170,96) Inductor	CTF1334
L 1871	(B,152,79) Inductor	CTF1334
L 1872	(A,166,90) Inductor	CTF1393
L 1873	(B,158,88) Inductor	CTF1393
L 1874	(B,128,68) Inductor	CTF1557
L 1881	(B,10,117) Inductor	CTF1306
L 2811	(B,98,34) Inductor	CTF1557
L 2812	(B,99,22) Inductor	CTF1557
L 2813	(B,42,19) Inductor	CTF1334
L 2814	(B,41,17) Inductor	CTF1334
L 2831	(A,36,16) Inductor	CTF1306
L 2832	(A,20,22) Inductor	CTF1306
L 2833	(A,23,21) Inductor	CTF1306
L 2834	(A,33,20) Inductor	CTF1306
L 2835	(A,23,23) Inductor	CTF1306
L 2836	(A,21,21) Inductor	CTF1306
L 2851	(B,71,21) Inductor	CTF1334
L 2852	(B,75,21) Inductor	CTF1334
L 2853	(B,79,20) Inductor	CTF1334
L 2854	(B,71,19) Inductor	CTF1334
L 2855	(B,75,19) Inductor	CTF1334
L 2856	(B,79,18) Inductor	CTF1334
L 2857	(B,88,11) Inductor	CTF1334
L 2859	(A,93,17) Inductor	CTF1334
L 2861	(B,75,23) Inductor	CTF1334
L 2862	(B,82,28) Inductor	CTF1334
L 2886	(B,82,25) Inductor	CTF1295
X 1601	(A,86,114) Radiator 12.58MHz	CSS1601
VR1551	(A,96,48) Semi-fixed 10kΩ(B)	CCP1448
△FU1202	(A,44,118) Fuse 4A	CEK1288
△FU1703	(A,86,122) Fuse 4A	CEK1288
△FU1704	(A,68,124) Fuse 4A	CEK1288
△FU1951	(A,118,87) Fuse 2A	CEK1284
△FU2801	(A,24,20) Fuse 5A	CEK1289
GY1865	(A,167,101) Sensor	CSX1074
GY1863	(A,169,113) Sensor	CSX1078
Y 1801	(A,124,70) Tuner Unit	CWE1674
Y 1401	(A,46,44) FM/AM Tuner Unit	CWE1650
EF1001	(A,139,32) EMI Filter	CCG1082
EF1201	(A,30,131) EMI Filter	CCG1067
EF1301	(A,74,17) EMI Filter	CCG1067
EF1351	(A,52,10) EMI Filter	CCG1067
EF1701	(A,91,125) EMI Filter	CCG1067
EF1901	(A,157,29) EMI Filter	CCG1172

<u>Circuit Symbol and No.</u>		<u>Part No.</u>
EF1902	(A,146,39) EMI Filter	CCG1172
EF1903	(A,152,39) EMI Filter	CCG1172
EF2801	(A,70,32) EMI Filter	CCG1067

RESISTORS

R 1001	(B,127,31)	RS1/16S750J
R 1004	(A,128,37)	RS1/16S472J
R 1005	(A,129,38)	RS1/16S472J
R 1006	(A,126,43)	RS1/16S512J
R 1007	(A,125,42)	RS1/16S102J
R 1008	(A,123,38)	RS1/16S101J
R 1009	(A,125,39)	RS1/16S512J
R 1010	(A,111,32)	RS1/16S101J
R 1011	(A,111,28)	RS1/16S101J
R 1012	(A,109,30)	RS1/16S223J
R 1013	(A,109,29)	RS1/16S223J
R 1014	(A,109,32)	RS1/16S102J
R 1015	(A,109,27)	RS1/16S102J
R 1016	(A,129,48)	RS1/16S563J
R 1017	(A,126,49)	RS1/16S473J
R 1102	(A,101,112)	RS1/16S102J
R 1104	(A,104,123)	RS1/10S101J
R 1105	(A,102,123)	RS1/10S101J
R 1106	(A,103,126)	RS1/10S620J
R 1107	(A,113,115)	RS1/16S102J
R 1108	(A,115,115)	RS1/16S102J
R 1109	(B,112,116)	RS1/16S223J
R 1110	(B,116,116)	RS1/16S223J
R 1111	(A,111,115)	RS1/16S101J
R 1112	(A,117,115)	RS1/16S101J
R 1113	(A,120,112)	RS1/16S332J
R 1114	(A,120,111)	RS1/16S682J
R 1115	(A,120,119)	RS1/10S222J
R 1118	(A,101,111)	RS1/16S0R0J
R 1119	(A,101,109)	RS1/16S0R0J
R 1201	(A,135,36)	RS1/16S473J
R 1202	(A,29,117)	RS1/16S563J
R 1203	(A,29,114)	RS1/16S473J
R 1204	(A,136,38)	RS1/16S473J
R 1205	(A,138,42)	RS1/16S473J
R 1206	(A,138,39)	RS1/16S473J
R 1207	(A,136,48)	RS1/16S473J
R 1208	(B,29,118)	RS1/16S512J
R 1209	(B,31,118)	RS1/16S102J
R 1210	(B,35,119)	RS1/16S101J
R 1211	(B,33,121)	RS1/16S512J
R 1212	(A,31,123)	RS1/16S472J
R 1213	(A,34,123)	RS1/16S472J
R 1214	(B,55,126)	RS1/16S0R0J
R 1215	(B,57,127)	RS1/16S0R0J
R 1216	(B,43,124)	RS1/16S0R0J
R 1217	(B,49,124)	RS1/16S0R0J
R 1218	(B,30,129)	RS1/16S103J
R 1219	(B,32,133)	RS1/16S103J
R 1220	(A,33,128)	RS1/16S750J
R 1301	(A,82,21)	RS1/16S563J
R 1302	(A,80,18)	RS1/16S473J
R 1303	(A,85,17)	RS1/16S102J
R 1304	(A,99,17)	RS1/16S102J

Circuit Symbol and No.**Part No.****Circuit Symbol and No.****Part No.**

R 1305 (B,86,16) RS1/16S223J

R 1506 (A,88,26) RS1/16S562J

R 1306 (B,100,15) RS1/16S223J

R 1507 (A,91,34) RS1/16S562J

R 1307 (B,88,18) RS1/16S101J

R 1508 (A,91,35) RS1/16S562J

R 1308 (B,100,19) RS1/16S101J

R 1509 (A,91,40) RS1/16S562J

R 1309 (B,77,20) RS1/16S512J

R 1510 (A,91,41) RS1/16S562J

R 1310 (B,81,20) RS1/16S102J

R 1511 (A,85,47) RS1/16S101J

R 1311 (A,75,25) RS1/16S101J

R 1512 (A,86,47) RS1/16S101J

R 1312 (B,78,23) RS1/16S512J

R 1551 (B,69,34) RS1/16S0R0J

R 1313 (A,72,20) RS1/16S472J

R 1552 (B,69,32) RS1/16S0R0J

R 1314 (A,72,23) RS1/16S472J

R 1553 (B,76,44) RS1/16S182J

R 1315 (A,72,17) RS1/16S103J

R 1554 (B,72,42) RS1/16S182J

R 1316 (B,78,14) RS1/16S103J

R 1555 (B,78,47) RS1/16S102J

R 1317 (B,75,17) RS1/16S750J

R 1556 (B,70,39) RS1/16S102J

R 1351 (A,65,11) RS1/16S563J

R 1557 (B,91,45) RS1/16S103J

R 1352 (A,66,8) RS1/16S473J

R 1558 (B,76,57) RS1/16S123J

R 1357 (B,61,10) RS1/16S512J

R 1559 (B,97,50) RS1/16S123J

R 1358 (B,65,10) RS1/16S102J

R 1560 (B,72,58) RS1/16S103J

R 1359 (A,58,15) RS1/16S101J

R 1561 (B,72,35) RS1/16S473J

R 1360 (B,62,13) RS1/16S512J

R 1562 (B,72,31) RS1/16S473J

R 1363 (A,56,10) RS1/16S472J

R 1563 (B,69,50) RS1/16S471J

R 1364 (A,56,13) RS1/16S472J

R 1564 (B,69,47) RS1/16S471J

R 1365 (B,52,10) RS1/16S103J

R 1565 (B,72,56) RS1/16S471J

R 1366 (B,51,12) RS1/16S103J

R 1566 (B,98,47) RS1/16S471J

R 1367 (A,53,12) RS1/16S750J

R 1567 (A,64,53) RS1/16S821J

R 1401 (A,25,33) RS1/16S105J

R 1568 (A,69,53) RS1/16S821J

R 1402 (B,47,110) RS1/16S0R0J

R 1569 (B,75,34) RS1/16S821J

R 1403 (B,49,102) RS1/16S0R0J

R 1570 (B,75,32) RS1/16S821J

R 1404 (B,49,59) RS1/16S681J

R 1571 (B,70,53) RS1/16S104J

R 1405 (B,49,56) RS1/16S681J

R 1572 (B,65,53) RS1/16S104J

R 1406 (B,43,32) RS1/16S821J

R 1573 (A,108,39) RS1/16S750J

R 1407 (A,56,106) RS1/16S103J

R 1574 (A,67,55) RS1/16S105J

R 1408 (A,58,106) RS1/16S103J

R 1575 (A,65,68) RS1/16S750J

R 1409 (A,52,111) RS1/16S273J

R 1576 (A,70,68) RS1/16S0R0J

R 1410 (B,53,102) RS1/16S273J

R 1580 (B,98,43) RS1/16S105J

R 1411 (B,47,34) RS1/16S330J

R 1581 (B,55,85) RS1/4S821J

R 1412 (A,56,110) RS1/16S183J

R 1582 (B,56,90) RS1/16S223J

R 1413 (A,56,108) RS1/16S183J

R 1583 (B,62,89) RS1/16S473J

R 1414 (B,55,46) RS1/16S151J

R 1584 (B,59,89) RS1/16S223J

R 1415 (B,51,107) RS1/16S753J

R 1585 (B,70,90) RS1/16S563J

R 1416 (B,53,109) RS1/16S753J

R 1586 (B,69,86) RS1/16S223J

R 1417 (B,55,42) RS1/16S681J

R 1587 (B,62,84) RS1/16S473J

R 1418 (B,55,38) RS1/16S152J

R 1588 (A,70,86) RS1/16S101J

R 1419 (B,41,29) RS1/16S332J

R 1601 (B,115,105) RS1/16S272J

R 1420 (B,50,36) RS1/16S680J

R 1602 (B,117,101) RS1/16S101J

R 1421 (B,53,36) RS1/16S151J

R 1603 (B,107,102) RS1/16S333J

R 1422 (B,50,23) RS1/16S151J

R 1604 (B,113,105) RS1/16S473J

R 1423 (B,46,26) RS1/16S101J

R 1607 (A,90,81) RS1/16S104J

R 1424 (B,53,22) RS1/16S680J

R 1610 (A,94,83) RS1/16S681J

R 1425 (B,72,100) RS1/16S473J

R 1611 (A,100,87) RS1/16S681J

R 1426 (B,49,81) RS1/16S681J

R 1612 (A,84,85) RAB4C681J

R 1427 (B,86,85) RS1/16S473J

R 1613 (B,97,109) RS1/16S472J

R 1428 (B,49,54) RS1/16S681J

R 1614 (A,94,89) RS1/16S681J

R 1429 (B,49,64) RS1/16S681J

R 1615 (A,80,86) RS1/16S473J

R 1430 (B,49,66) RS1/16S681J

R 1617 (A,73,90) RS1/16S681J

R 1431 (B,49,61) RS1/16S681J

R 1618 (A,96,92) RAB4C681J

R 1432 (B,72,102) RS1/16S473J

R 1619 (A,98,88) RS1/16S104J

R 1433 (B,71,106) RS1/16S473J

R 1621 (A,75,82) RS1/16S470J

R 1501 (A,63,35) RS1/16S0R0J

R 1622 (A,76,82) RS1/16S470J

R 1502 (A,61,34) RS1/16S0R0J

R 1623 (A,76,86) RS1/16S103J

R 1505 (A,91,30) RS1/16S562J

R 1624 (A,76,84) RS1/16S103J

<u>Circuit Symbol and No.</u>		<u>Part No.</u>
R 1625	(A,96,98)	RAB4C681J
R 1626	(A,72,99)	RAB4C681J
R 1627	(B,70,92)	RS1/16S563J
R 1628	(A,71,103)	RAB4C681J
R 1629	(A,96,102)	RAB4C681J
R 1630	(A,96,104)	RS1/16S473J
R 1631	(A,97,107)	RAB4C681J
R 1632	(A,67,112)	RS1/16S473J
R 1633	(A,67,107)	RS1/16S473J
R 1634	(A,72,109)	RAB4C681J
R 1635	(A,97,111)	RAB4C681J
R 1636	(A,92,122)	RS1/16S473J
R 1637	(B,97,118)	RS1/16S473J
R 1638	(B,71,97)	RS1/16S104J
R 1640	(B,79,109)	RS1/16S681J
R 1641	(A,92,114)	RS1/16S681J
R 1642	(B,86,111)	RS1/16S473J
R 1643	(B,72,108)	RS1/16S473J
R 1644	(B,80,111)	RS1/16S473J
R 1647	(B,76,109)	RS1/16S473J
R 1651	(B,77,116)	RS1/16S473J
R 1652	(B,79,116)	RS1/16S473J
R 1657	(B,72,110)	RS1/16S473J
R 1658	(B,72,112)	RS1/16S473J
R 1659	(A,82,79)	RS1/16S473J
R 1661	(A,90,85)	RS1/16S681J
R 1662	(A,87,85)	RS1/16S681J
R 1663	(B,88,88)	RS1/16S681J
R 1664	(A,88,85)	RS1/16S681J
R 1801	(B,147,69)	RS1/16S152J
R 1802	(B,144,65)	RS1/16S151J
R 1803	(B,145,63)	RS1/16S681J
R 1806	(B,148,102)	RS1/16S0R0J
R 1807	(B,128,73)	RS1/16S391J
R 1808	(B,132,78)	RS1/16S473J
R 1810	(B,120,68)	RS1/16S221J
R 1821	(A,21,122)	RS1/16S0R0J
R 1822	(B,14,123)	RS1/16S333J
R 1823	(A,12,121)	RS1/16S203J
R 1824	(A,20,117)	RS1/16S822J
R 1825	(A,19,113)	RS1/16S202J
R 1826	(A,16,115)	RS1/16S564J
R 1827	(A,17,117)	RS1/16S513J
R 1828	(A,14,119)	RS1/16S513J
R 1829	(B,24,118)	RS1/16S102J
R 1830	(B,22,117)	RS1/16S102J
R 1831	(B,21,122)	RS1/16S104J
R 1832	(B,21,126)	RS1/16S513J
R 1833	(B,16,127)	RS1/16S473J
R 1834	(B,18,127)	RS1/16S563J
R 1835	(A,20,128)	RS1/16S104J
R 1841	(A,160,110)	RS1/16S104J
R 1843	(B,144,108)	RS1/16S101J
R 1861	(B,165,122)	RS1/10S105J
R 1862	(B,164,115)	RS1/10S151J
R 1871	(B,146,79)	RS1/10S103J
R 1872	(B,149,82)	RS1/10S103J
R 1873	(B,143,84)	RN1/16SE1001D
R 1874	(B,139,84)	RN1/16SE1101D
R 1875	(B,140,89)	RN1/16SE1001D

<u>Circuit Symbol and No.</u>		<u>Part No.</u>
R 1881	(B,10,120)	RS1/4S102J
R 1901	(A,78,74)	RS1/16S102J
R 1902	(B,141,42)	RS1/16S102J
R 1903	(A,78,73)	RS1/16S272J
R 1904	(B,144,43)	RS1/16S272J
R 1905	(B,160,33)	RS1/16S153J
R 1906	(B,157,33)	RS1/4S102J
R 1907	(B,175,41)	RS1/10S271J
R 1908	(B,175,63)	RS1/10S221J
R 1909	(B,175,45)	RS1/10S271J
R 1910	(A,167,59)	RS1/10S271J
R 1911	(B,175,72)	RS1/16S122J
R 1912	(B,160,58)	RS1/16S0R0J
R 1950	(B,111,90)	RS1/4S471J
R 1951	(B,169,65)	RS1/16S432J
R 1952	(B,169,64)	RS1/16S222J
R 1953	(B,170,61)	RS1/16S223J
R 1954	(B,109,41)	RS1/16S122J
R 2831	(A,38,17)	RS1/16S820J
R 2832	(A,38,10)	RS1/16S820J
R 2833	(B,42,12)	RS1/16S223J
R 2834	(B,43,8)	RS1/16S223J
R 2835	(B,44,12)	RS1/16S471J
R 2836	(B,45,8)	RS1/16S471J
R 2837	(A,39,7)	RS1/16S820J
R 2838	(A,33,16)	RS1/16S820J
R 2839	(B,35,8)	RS1/16S223J
R 2840	(A,35,12)	RS1/16S223J
R 2841	(B,37,8)	RS1/16S471J
R 2842	(B,32,13)	RS1/16S471J
R 2843	(A,27,16)	RS1/16S820J
R 2844	(A,27,7)	RS1/16S820J
R 2845	(A,30,17)	RS1/16S223J
R 2846	(A,25,8)	RS1/16S223J
R 2847	(B,26,13)	RS1/16S471J
R 2848	(B,30,8)	RS1/16S471J
R 2849	(A,92,23)	RS1/16SS681J
R 2850	(A,89,31)	RS1/16S473J
R 2851	(A,54,9)	RS1/16S0R0J
R 2852	(A,61,10)	RS1/16S0R0J
R 2853	(A,60,9)	RS1/16S0R0J
R 2854	(A,54,7)	RS1/16S0R0J
R 2855	(A,60,5)	RS1/16S0R0J
R 2856	(A,54,5)	RS1/16S0R0J
R 2873	(B,92,10)	RS1/16S0R0J
R 2886	(B,84,28)	RS1/16S473J
R 2887	(B,86,29)	RS1/16S104J
R 2888	(B,80,28)	RS1/10S102J

CAPACITORS

C 1001	(B,141,26)	CCSRCH101J50
C 1002	(B,143,26)	CCSRCH101J50
C 1003	(B,142,11)	CCSRCH101J50
C 1004	(B,143,17)	CCSRCH101J50
C 1005	(B,123,26)	CCSRCH101J50
C 1006	(B,139,26)	CKSRYF104Z25
C 1007	(B,121,26)	CCSRCH101J50
C 1008	(B,137,26)	CKSRYF104Z25
C 1009	(B,119,26)	CCSRCH101J50

Circuit Symbol and No.**Part No.****Circuit Symbol and No.****Part No.**

C 1010 (B,135,26) CKSRYF104Z25

C 1363 (A,54,15)

CKSYB106K6R3

C 1011 (B,120,12) CCSRCH471J50

C 1364 (A,53,7)

CKSYB106K6R3

C 1012 (B,133,26) CCSRCH101J50

C 1365 (B,51,14)

CKSRYB473K50

C 1013 (B,118,25) CCSRCH681J50

C 1401 (B,46,107)

CKSQYB225K10

C 1014 (B,131,26) CCSRCH101J50

C 1402 (B,50,100)

CKSQYB225K10

C 1015 (B,120,23) CCSRCH681J50

C 1403 (A,26,36)

CCSRCH270J50

C 1016 (B,129,26) CCSRCH101J50

C 1404 (B,50,88)

CKSYB475K16

C 1017 (B,118,14) CCSRCH681J50

C 1405 (B,42,79)

CKSRYB103K50

C 1018 (B,127,26) CCSRCH101J50

C 1406 (A,28,36)

CCSRCH220J50

C 1019 (A,119,18) CCSRCH681J50

C 1407 (B,42,88)

CKSRYB103K50

C 1020 (B,125,26) CCSRCH101J50

C 1408 (B,42,51)

CKSRYB103K50

C 1022 (A,130,33) CKSYB106K6R3

C 1409 (A,31,33)

CCSRCH270J50

C 1023 (A,126,35) CKSYB106K6R3

C 1410 (A,51,92)

CEVW470M6R3

C 1026 (A,126,39) CCSRCJ3R0C50

C 1411 (A,53,49)

CEVW221M16

C 1027 (A,102,30) CKSRYB105K10

C 1412 (A,33,33)

CCSRCH330J50

C 1028 (A,106,30) CKSRYB105K10

C 1413 (A,35,36)

CCSRCH470J50

C 1029 (A,106,29) CKSRYB105K10

C 1414 (B,39,33)

CKSRYB103K50

C 1030 (A,106,27) CKSRYB105K10

C 1415 (B,57,63)

CKSRYB103K50

C 1031 (A,129,49) CKSRYB105K10

C 1418 (A,57,100)

CEVW100M16

C 1032 (A,122,43) CEVW100M16

C 1419 (B,58,40)

CKSRYB103K50

C 1033 (A,126,46) CKSRYB104K16

C 1420 (B,50,48)

CCSRCH270J50

C 1034 (A,101,22) CEVW100M16

C 1421 (A,50,32)

CKSRYB103K50

C 1035 (A,107,22) CEVW220M16

C 1422 (B,51,45)

CCSRCH150J50

C 1101 (A,103,120) CKSRYB104K16

C 1423 (A,51,85)

CEVW220M16

C 1102 (A,110,101) CEVW100M16

C 1424 (A,56,83)

CKSRYB103K50

C 1103 (A,116,101) CEVW220M16

C 1425 (B,51,105)

CCSRCH6R0D50

C 1106 (B,111,112) CKSRYB105K10

C 1426 (B,86,89)

CKSRYB103K50

C 1107 (B,113,112) CKSRYB105K10

C 1427 (B,53,111)

CCSRCH6R0D50

C 1108 (B,115,112) CKSRYB105K10

C 1428 (B,55,39)

CKSRYB222K50

C 1109 (B,117,112) CKSRYB105K10

C 1429 (A,55,104)

CKSRYB103K50

C 1112 (B,117,123) CCSRCH471J50

C 1430 (A,56,74)

CKSRYB104K16

C 1113 (B,119,121) CCSRCH471J50

C 1431 (A,51,101)

CEVW100M16

C 1117 (B,107,123) CKSRYB104K25

C 1432 (A,34,24)

CKSRYB103K50

C 1201 (A,32,114) CKSRYB104K16

C 1433 (B,49,28)

CKSRYB222K50

C 1202 (A,36,117) CEVW100M16

C 1434 (A,44,23)

CKSRYB222K50

C 1203 (A,27,114) CKSRYB105K10

C 1435 (B,48,22)

CKSRYB222K50

C 1204 (A,138,37) CKSRYB103K50

C 1436 (B,74,104)

CKSRYB103K50

C 1206 (B,33,123) CCSRCJ3R0C50

C 1437 (B,54,48)

CKSRYB103K50

C 1208 (A,35,126) CKSYB106K6R3

C 1442 (A,53,60)

CEVW221M16

C 1209 (A,30,127) CKSYB106K6R3

C 1501 (A,62,30)

CKSQYB105K16

C 1210 (B,33,131) CKSRYB473K50

C 1504 (A,79,25)

CKSQYB105K16

C 1301 (A,90,22) CEVW100M16

C 1505 (A,95,29)

CKSQYB105K16

C 1302 (A,96,22) CEVW220M16

C 1506 (A,90,28)

CKSQYB105K16

C 1303 (A,81,24) CKSRYB104K16

C 1507 (A,60,47)

CKSQYB105K16

C 1304 (A,85,22) CEVW100M16

C 1508 (A,60,45)

CKSQYB105K16

C 1305 (A,82,18) CKSRYB105K10

C 1509 (A,91,32)

CKSQYB105K16

C 1306 (B,86,24) CKSRYB105K10

C 1510 (A,95,35)

CKSQYB105K16

C 1307 (B,86,19) CKSRYB105K10

C 1511 (A,95,37)

CKSQYB105K16

C 1308 (B,96,19) CKSRYB105K10

C 1512 (A,94,41)

CKSQYB105K16

C 1309 (B,96,18) CKSRYB105K10

C 1513 (A,90,44)

CKSQYB105K16

C 1311 (B,77,23) CCSRCJ3R0C50

C 1514 (A,92,44)

CKSQYB105K16

C 1313 (B,74,22) CKSYB106K6R3

C 1515 (A,78,47)

CKSRYB103K50

C 1314 (A,70,19) CKSYB106K6R3

C 1516 (A,82,52)

CEVW220M16

C 1315 (B,99,8) CCSRCH471J50

C 1517 (A,61,40)

CEVW100M16

C 1316 (B,78,16) CKSRYB473K50

C 1551 (B,91,43)

CCSRCH7R0D50

C 1318 (B,95,8) CCSRCH471J50

C 1552 (B,79,35)

CKSRYB222K50

C 1353 (A,65,13) CKSRYB104K16

C 1553 (B,79,31)

CKSRYB222K50

C 1354 (A,64,17) CEVW100M16

C 1554 (B,76,48)

CKSRYB222K50

C 1355 (A,64,8) CKSRYB105K10

C 1555 (B,74,46)

CKSRYB222K50

C 1361 (B,61,13) CCSRCJ3R0C50

C 1556 (B,76,56)

CCSRCJ3R0C50

<u>Circuit Symbol and No.</u>		<u>Part No.</u>	<u>Circuit Symbol and No.</u>		<u>Part No.</u>
C 1557	(A,92,54)	CEVW101M16	C 1866	(A,173,96)	CKSRYB104K16
C 1558	(B,77,52)	CKSRYB103K50	C 1867	(A,174,107)	CKSRYB105K10
C 1559	(B,75,36)	CKSQYB225K10	C 1871	(B,161,87)	CKSRYF103Z50
C 1560	(B,75,30)	CKSQYB225K10	C 1872	(A,146,77)	CKSRYB104K25
C 1561	(A,70,49)	CEVW100M16	C 1873	(A,147,77)	CKSRYB334K10
C 1562	(A,65,49)	CEVW100M16	C 1874	(A,163,90)	CKSRYF103Z50
C 1563	(B,96,45)	CKSYB475K16	C 1875	(A,153,79)	CEVW101M16
C 1564	(A,71,56)	CKSYB475K16	C 1876	(A,140,78)	CEVW470M16
C 1565	(A,98,40)	CKSRYB103K50	C 1877	(A,154,91)	CKSRYB104K16
C 1566	(A,74,60)	CKSRYB103K50	C 1878	(A,150,88)	CKSRYF104Z25
C 1567	(A,103,35)	CEVW470M16	C 1879	(A,156,91)	CKSRYB474K10
C 1568	(A,75,65)	CEVW470M16	C 1880	(A,144,77)	CKSRYB104K25
C 1569	(A,102,48)	CEVW330M10	C 1881	(B,10,123)	CKSRYB104K25
C 1570	(A,103,42)	CEVW101M4	C 1882	(A,146,88)	CEVW470M16
C 1571	(A,63,64)	CEVW330M10	C 1901	(A,158,36)	CEVW101M16
C 1572	(A,69,64)	CEVW101M4	C 1902	(A,145,46)	CEVW101M16
C 1575	(B,80,47)	CKSRYB104K25	C 1903	(A,78,80)	CKSRYB104K16
C 1576	(B,67,42)	CKSRYB104K25	C 1904	(B,132,41)	CKSRYB104K25
C 1577	(A,76,51)	CEVW101M16	C 1905	(A,143,40)	CKSRYB103K50
C 1580	(A,61,88) 22μF	CCG1183	C 1906	(A,161,30)	CKSRYB103K50
C 1601	(B,119,101)	CKSRYB103K50	C 1907	(B,170,34)	CKSRYB103K50
C 1602	(A,81,82)	CKSRYB104K16	C 1908	(A,166,31)	CEVW101M16
C 1603	(A,91,120)	CKSRYB103K50	C 1910	(A,166,45)	CEVW101M16
C 1604	(A,84,76)	CEVW100M16	C 1911	(B,168,61)	CKSRYB104K25
C 1605	(A,87,79)	CKSRYB103K50	C 1912	(B,169,44)	CKSRYB103K50
C 1606	(A,94,120)	CKSRYB222K50	C 1913	(B,170,56)	CKSRYB103K50
C 1607	(A,87,81)	CKSRYB103K50	C 1914	(B,169,39)	CKSRYB103K50
C 1610	(A,73,93)	CKSRYB102K50	C 1915	(A,166,53)	CEVW101M16
C 1611	(A,95,95)	CKSRYB102K50	C 1916	(A,166,38)	CEVW101M16
C 1612	(A,72,106)	CKSRYB102K50	C 1917	(A,155,46)	CEVW101M16
C 1613	(A,82,113)	CKSRYB102K50	C 1918	(A,155,41)	CKSRYB103K50
C 1614	(B,84,111)	CKSRYB105K10	C 1919	(A,165,74)	CEVW101M16
C 1615	(A,90,115)	CKSRYB103K50	C 1920	(B,169,73)	CKSRYB103K50
C 1616	(A,70,93)	CKSRYB104K16	C 1921	(B,169,69)	CKSRYB103K50
C 1619	(A,102,90)	CKSRYB104K16	C 1922	(A,173,84)	CKSRYB104K16
C 1620	(A,96,86)	CKSRYB104K16	C 1923	(A,166,65)	CEVW470M16
C 1621	(A,94,117)	CKSRYB104K16	C 1924	(A,173,86)	CKSRYB103K50
C 1622	(B,112,98)	CKSRYB103K50	C 1925	(A,172,91)	CEVW220M16
C 1623	(B,111,105)	CKSRYB103K50	C 1950	(A,122,94)	CEVW101M16
C 1801	(B,149,69)	CKSRYB222K50	C 1951	(B,108,85)	CKSRYB103K50
C 1802	(B,139,67)	CKSRYB103K50	C 1952	(B,115,86)	CKSRYB103K50
C 1803	(B,146,68)	CCSRCH220J50	C 1953	(A,127,87)	CEVW101M16
C 1805	(A,123,76)	CEVW100M16	C 1954	(A,113,39)	CEVW101M16
C 1806	(B,120,76)	CKSRYB473K50	C 1955	(B,112,44)	CKSRYB103K50
C 1807	(A,129,78)	CEVW220M16	C 1956	(B,104,44)	CKSRYB103K50
C 1808	(B,126,73)	CKSRYB103K50	C 1957	(A,111,47)	CEVW101M16
C 1809	(B,132,72)	CKSRYB103K50	C 2813	(B,23,31)	CKSRYF104Z25
C 1810	(B,136,80)	CKSRYB473K50	C 2814	(B,18,32)	CKSRYF104Z25
C 1811	(B,114,73)	CKSRYB103K50	C 2831	(A,38,20)	CEVW100M16
C 1812	(B,124,68)	CKSRYB224K16	C 2832	(A,39,13)	CEVW100M16
C 1821	(A,11,118)	CKSRYB823K16	C 2833	(B,42,15)	CKSRYB222K50
C 1822	(B,17,124)	CKSRYB104K25	C 2834	(B,44,6)	CKSRYB222K50
C 1823	(B,17,122)	CKSRYB103K50	C 2837	(A,44,7)	CEVW100M16
C 1824	(A,14,117)	CKSRYB104K16	C 2838	(A,29,20)	CEVW100M16
C 1825	(B,23,122)	CKSRYB102K50	C 2839	(B,35,5)	CKSRYB222K50
C 1826	(A,21,119)	CKSRYF104Z25	C 2840	(B,33,15)	CKSRYB222K50
C 1862	(B,161,122)	CKSRYB103K50	C 2843	(A,29,13)	CEVW100M16
C 1863	(B,163,111)	CKSYB106K6R3	C 2844	(A,34,7)	CEVW100M16
C 1864	(B,168,98)	CKSRYB104K25	C 2845	(B,28,15)	CKSRYB222K50
C 1865	(A,166,94)	CCSRCH102J50	C 2846	(B,28,5)	CKSRYB222K50

Circuit Symbol and No.**Part No.**

C 2849	(A,92,24)	CKSSYB102K50
C 2851	(B,23,33)	CKSRYF103Z50
C 2879	(A,96,21)	CEVW470M16
C 2880	(A,73,40)	CKSRYF104Z25
C 2886	(B,89,25)	CKSRYF104Z25
C 2887	(B,20,32)	CKSRYF104Z25

Monitor Unit**Consists of****Monitor PCB****Upper PCB****Inverter PCB****GHI****Unit Number:CWM9950(AVIC-N2/XU/UC)****Unit Number:CWM9949(AVIC-X1R/XU/EW)****Unit Name:Monitor Unit****MISCELLANEOUS**

IC 4001	(A,28,50) IC	TC90A64AF-P
IC 4061	(A,55,79) IC	TC7SH08FUS1
IC 4141	(A,62,38) IC	TC7SH08FUS1
IC 4142	(A,67,43) IC	TK15404AMI
IC 4151	(A,53,34) IC	NJM2138V
IC 4181	(A,45,18) IC	NJM082BV
IC 4212	(A,102,28) IC	TC7SH08FUS1
IC 4311	(A,11,33) IC	NJM062V
IC 4311	(A,11,33) IC	NJM062V
IC 4601	(A,77,31) IC	PE5413B
IC 4602	(A,67,10) IC	S-80835CNNB-B8U

IC 4651	(A,64,25) IC	S-93C46BR0I-J8T1
IC 4701	(A,106,68) IC	PD6340A
IC 4702	(A,137,76) IC	TC7SH08FUS1
IC 4841	(A,125,45) IC	R1130H251B
IC 4851	(A,134,21) IC	R1224N102H

IC 4861	(A,143,47) IC	MAX1748EUES1
IC 4901	(A,93,19) IC	NJM2903V
IC 5002	(B,5,14) IC	TC7SET08FUS1
IC 5003	(B,10,46) IC	OZ9611SN
IC 5004	(A,9,59) FET	SI6544DQ

IC 5005	(A,13,56) FET	SI6544DQ
Q 4002	(A,44,62) Transistor	2SC4617
Q 4101	(A,54,66) Transistor	2SC4617
Q 4102	(A,48,63) Transistor	2SA1774
Q 4103	(A,49,65) Transistor	2SC4617

Q 4111	(A,56,60) Transistor	2SC4617
Q 4112	(A,48,57) Transistor	2SA1774
Q 4113	(A,51,60) Transistor	2SC4617
Q 4121	(A,56,54) Transistor	2SC4617
Q 4122	(A,48,51) Transistor	2SA1774

Q 4123	(A,51,54) Transistor	2SC4617
Q 4131	(A,56,49) Transistor	2SC4617
Q 4132	(A,48,46) Transistor	2SA1774
Q 4133	(A,51,49) Transistor	2SC4617
Q 4151	(A,46,38) Transistor	UMZ1N

Q 4152	(A,39,35) Transistor	UMZ1N
Q 4153	(A,39,32) Transistor	UMZ1N
Q 4154	(A,54,26) Transistor	UMZ1N
Q 4155	(A,47,26) Transistor	UMZ1N

Circuit Symbol and No.**Part No.**

Q 4156	(A,39,26) Transistor	UMZ1N
Q 4182	(A,39,21) Transistor	UMX2N
Q 4183	(A,39,16) Transistor	UMT2N
Q 4603	(A,98,26) Transistor	2SC4617
Q 4681	(A,11,7) Transistor	IMD3A
Q 4682	(A,11,11) Transistor	IMD3A

Q 4683	(A,11,15) Transistor	FMG12
Q 4741	(A,119,60) Transistor	DTA123JK
Q 4742	(A,119,56) Transistor	DTC124EK
Q 4831	(A,148,28) Transistor	2SB1260
Q 4832	(A,141,22) Transistor	DTC114EK

Q 4833	(A,140,18) Transistor	2SC4617
Q 4835	(A,100,45) Transistor	2SD1664
Q 4851	(A,131,26) FET	CPH6316
Q 5001	(B,12,33) Transistor	2SC4617
Q 5002	(B,13,36) Transistor	2SC4617

Q 5003	(B,8,36) Transistor	DTA144EE
Q 5004	(B,6,35) Transistor	2SC4617
Q 5011	(B,10,10) Transistor	2SC4097
Q 5020	(B,9,64) Transistor	2SC4617
Q 5101	(B,12,69) Transistor	2SC4617

Q 5102	(B,11,67) Transistor	2SC4617
Q 5103	(B,10,62) Transistor	2SA1774
Q 5105	(B,7,67) Transistor	UMX2N
D 4301	(A,5,132) Diode	DAN202U
D 4311	(A,11,37) Diode	AM-30-21

D 4321	(A,9,119) LED	CL-490S-WF-SD
D 4322	(A,9,50) LED	CL-490S-WF-SD
D 4355	(A,10,160) LED	CL-190UB2-X
D 4356	(A,10,148) LED	CL-190UB2-X
D 4357	(A,10,21) LED	CL-190UB2-X

D 4358	(A,10,9) LED	CL-190UB2-X
D 4601	(A,99,32) Diode	RB500V-40
D 4681	(A,14,13) Diode	MA111
D 4682	(A,13,18) Diode	MA111
D 4683	(A,10,20) Diode	UDZS5R6(B)

D 4684	(A,10,25) Diode	UDZS5R6(B)
D 4701	(A,114,77) Diode	UDZS5R6(B)
D 4702	(A,113,77) Diode	UDZS5R6(B)
D 4703	(A,121,73) Diode	UDZS5R6(B)
D 4704	(A,119,73) Diode	UDZS5R6(B)

D 4705	(A,102,79) Diode	UDZS5R6(B)
D 4706	(A,100,79) Diode	UDZS5R6(B)
D 4831	(A,142,19) Diode	UDZS22(B)
D 4835	(A,104,41) Diode	UDZS5R6(B)
D 4852	(A,131,31) Diode	U2FWJ44N

D 4861	(A,135,50) Diode	RB160M-30
D 4862	(A,137,57) Diode	RB500V-40
D 4863	(A,139,57) Diode	RB500V-40
D 4864	(A,141,57) Diode	RB500V-40
D 4865	(A,143,57) Diode	RB500V-40

D 4866	(A,145,57) Diode	RB500V-40
D 4867	(A,146,56) Diode	RB500V-40
D 4868	(A,148,56) Diode	RB500V-40
D 4869	(A,150,56) Diode	RB500V-40
D 5001	(B,11,31) Diode	UDZS6R8(B)

D 5003	(A,13,45) LED	CL-195PG-CD
D 5004	(A,13,42) LED (EW)	CL-195SR-CD
D 5005	(A,13,31) LED	CL-195PG-CD
D 5006	(A,13,28) LED (EW)	CL-195SR-CD

<u>Circuit Symbol and No.</u>		<u>Part No.</u>
D 5007	(A,13,16) LED	CL-190UB2-X
D 5008	(A,13,10) LED	CL-190UB2-X
D 5009	(A,11,42) Diode	RB751V40
D 5010	(A,17,53) Diode	UDZS6R2(B)
D 5011	(A,7,56) Diode	UDZS6R2(B)
D 5012	(B,6,71) Diode	UDZS6R2(B)
D 5013	(B,18,69) Diode	MA147
D 5014	(B,6,74) Diode	MA147
D 5016	(B,16,10) Diode	UDZS5R6(B)
D 5030	(A,16,19) Diode (EW)	DAN202U
D 5101	(B,15,67) Diode	UDZS8R2(B)
L 4001	(A,17,38) Inductor	CTF1306
L 4002	(A,21,36) Inductor	CTF1306
L 4003	(A,26,36) Inductor	CTF1306
L 4004	(A,27,36) Inductor	CTF1306
L 4005	(A,28,65) Inductor-Array	CTF1421
L 4006	(A,23,65) Inductor-Array	CTF1421
L 4008	(A,26,65) Inductor	CTF1306
L 4009	(A,23,37) Inductor	CTF1306
L 4011	(A,19,36) Inductor	CTF1306
L 4012	(A,24,36) Ferrite Bead	CTF1528
L 4013	(A,30,63) Ferrite Bead	CTF1528
L 4014	(A,24,63) Ferrite Bead	CTF1528
L 4015	(A,20,64) Inductor	CTF1306
L 4016	(A,16,47) Ferrite Bead	CTF1528
L 4017	(A,28,37) Inductor	CTF1306
L 4071	(A,50,69) Inductor	LCYA100J2520
L 4074	(A,45,41) Inductor	LCYA100J2520
L 4075	(A,53,70) Inductor	LCYA100J2520
L 4078	(A,43,68) Inductor	LCYA100J2520
L 4079	(A,41,68) Inductor	CTF1306
L 4081	(A,51,75) Inductor	LCYC2R2K2125
L 4101	(A,121,37) Inductor	LCYA100J2520
L 4141	(A,71,63) Inductor	LCYA100J2520
L 4151	(A,62,31) Inductor	LCYA100J2520
L 4152	(A,61,18) Inductor	LCYA100J2520
L 4181	(A,57,19) Coil	LCYA101J2520
L 4182	(A,57,16) Coil	LCYA101J2520
L 4311	(A,6,38) Inductor	LCYA100J2520
L 4311	(A,6,38) Inductor	LCYA100J2520
L 4601	(A,83,14) Inductor	LCYA100J2520
L 4701	(A,119,63) Inductor	LCYA100J2520
L 4801	(A,20,31) Inductor	LCYA100J2520
L 4802	(A,23,30) Inductor	LCYA100J2520
L 4803	(A,27,30) Inductor	LCYA100J2520
L 4804	(A,30,30) Inductor	LCYA100J2520
L 4841	(A,126,37) Choke Coil 10μH	CTH1249
L 4851	(A,142,28) Choke Coil 10μH	CTH1259
L 4852	(A,126,26) Choke Coil 18μH	CTH1250
L 4861	(A,137,37) Choke Coil 10μH	CTH1249
L 4862	(A,136,46) Choke Coil 6.8μH	CTH1248
L 4863	(A,137,62) Inductor	LCTC100K1608
L 4864	(A,130,55) Inductor	LCYA100J2520
L 4865	(A,149,65) Inductor	LCYA100J2520
L 4901	(A,92,27) Inductor	LCYA2R2J2520
T 5001	(A,9,80) Transformer	CTT1103
TH4601	(A,145,82) Thermistor	CCX1051
X 4001	(A,35,68) Crystal Resonator 42MHz	CSS1604
X 4601	(A,76,18) Radiator 12.58MHz	CSS1601
X 4701	(A,107,78) Ceramic Resonator 4.97MHz	CSS1573

<u>Circuit Symbol and No.</u>		<u>Part No.</u>
S 4351	(A,12,160) Push Switch	CSG1111
S 4352	(A,12,148) Push Switch	CSG1111
S 4353	(A,12,21) Push Switch	CSG1111
S 4354	(A,12,9) Push Switch	CSG1111
S 5001	(A,18,43) Push Switch	CSG1111
S 5002	(A,18,29) Push Switch	CSG1111
S 5003	(A,18,13) Push Switch	CSG1111
VR5001	(A,8,43) Semi-fixed 15kΩ(B)	CCP1490
△FU4831	(A,117,10) Fuse 630mA	CEK1252
△FU5001	(B,7,24) Fuse 1.25A	CEK1255

RESISTORS

R 4001	(A,26,33)	RS1/16S101J
R 4002	(A,20,34)	RS1/16S470J
R 4003	(A,28,34)	RS1/16S101J
R 4004	(A,33,34)	RS1/16S101J
R 4005	(A,43,43)	RS1/16S473J
R 4006	(A,45,45)	RS1/16S392J
R 4009	(A,44,60)	RS1/16S152J
R 4010	(A,42,65)	RS1/16S331J
R 4012	(A,33,63)	RS1/16SS105J
R 4013	(A,34,64)	RS1/16S391J
R 4014	(A,28,69)	RAB4C101J
R 4015	(A,25,69)	RS1/16S473J
R 4018	(A,22,69)	RS1/16S101J
R 4022	(A,20,66)	RS1/16S101J
R 4023	(A,18,72)	RS1/16S0R0J
R 4024	(A,17,62)	RS1/16S333J
R 4025	(A,15,39)	RS1/16S101J
R 4026	(A,30,35)	RS1/16S101J
R 4027	(A,16,37)	RS1/16S101J
R 4030	(A,18,33)	RS1/16S101J
R 4031	(A,29,34)	RS1/16S101J
R 4061	(A,64,81)	RS1/16S473J
R 4062	(A,63,78)	RS1/16S152J
R 4063	(A,58,80)	RS1/16S0R0J
R 4064	(A,57,82)	RS1/16S0R0J
R 4084	(A,20,74)	RS1/16S473J
R 4085	(A,22,74)	RS1/16S473J
R 4086	(A,22,70)	RS1/16S473J
R 4087	(A,40,75)	RS1/16S104J
R 4088	(A,43,81)	RS1/16S104J
R 4089	(A,45,82)	RS1/16S104J
R 4101	(A,57,66)	RS1/16S8201F
R 4102	(A,57,63)	RS1/16S5602F
R 4103	(A,55,63)	RS1/16S681J
R 4104	(A,53,64)	RS1/16S331J
R 4105	(A,105,11)	RS1/16S104J
R 4107	(A,61,65)	RS1/16S6801D
R 4108	(A,51,66)	RS1/16S331J
R 4109	(A,49,63)	RS1/16S391J
R 4110	(A,47,66)	RS1/16S391J
R 4111	(A,58,60)	RS1/16S153J
R 4112	(A,58,57)	RS1/16S104J
R 4113	(A,57,57)	RS1/16S681J
R 4114	(A,54,59)	RS1/16S331J
R 4115	(A,102,13)	RS1/16S75R0D
R 4118	(A,54,60)	RS1/16S331J
R 4119	(A,50,57)	RS1/16S391J

Circuit Symbol and No.**Part No.****Circuit Symbol and No.****Part No.**

R 4120 (A,49,60)
R 4121 (A,58,54)
R 4122 (A,58,51)

RS1/16S391J
RS1/16S153J
RS1/16S104J

R 4193 (A,37,14)
R 4194 (A,39,18)
R 4208 (A,124,72)

RS1/16S0R0J
RS1/16S0R0J
RS1/16S101J

R 4123 (A,57,51)
R 4124 (A,54,53)
R 4125 (A,103,14)
R 4128 (A,54,54)
R 4129 (A,50,51)

RS1/16S681J
RS1/16S331J
RS1/16S75R0D
RS1/16S331J
RS1/16S391J

R 4209 (A,123,69)
R 4211 (A,103,22)
R 4311 (A,13,30)
R 4312 (A,15,30)
R 4313 (A,7,33)

RS1/16S101J
RS1/16S681J
RS1/16S275J
RS1/16S105J
RS1/16S393J

R 4130 (A,49,54)
R 4131 (A,58,49)
R 4132 (A,58,46)
R 4133 (A,57,46)
R 4134 (A,54,47)

RS1/16S391J
RS1/16S153J
RS1/16S104J
RS1/16S681J
RS1/16S331J

R 4314 (A,8,31)
R 4315 (A,15,45)
R 4321 (A,14,124)
R 4322 (A,9,124)
R 4323 (A,8,44)

RS1/16S103J
RS1/16SS121J
RS1/16SS121J
RS1/16SS121J
RS1/16SS121J

R 4135 (A,105,15)
R 4138 (A,54,49)
R 4139 (A,50,46)
R 4140 (A,49,49)
R 4141 (A,64,42)

RS1/16S75R0D
RS1/16S331J
RS1/16S391J
RS1/16S391J
RS1/16S105J

R 4324 (A,10,44)
R 4359 (A,8,139)
R 4360 (A,8,140)
R 4361 (A,8,141)
R 4362 (A,8,142)

RS1/16SS121J
RS1/16SS181J
RS1/16SS121J
RS1/16SS121J
RS1/16SS121J

R 4142 (A,62,43)
R 4145 (A,64,46)
R 4146 (A,66,45)
R 4147 (A,65,38)
R 4148 (A,65,37)

RS1/16S224J
RS1/16S1501D
RS1/16S5602F
RS1/16S3302F
RS1/16S1002F

R 4363 (A,4,129)
R 4364 (A,6,129)
R 4365 (A,11,26)
R 4366 (A,10,27)
R 4453 (A,138,72)

RS1/16SS181J
RS1/16SS121J
RS1/16SS121J
RS1/16SS121J
RS1/16S101J

R 4150 (A,39,30)
R 4152 (A,48,35)
R 4153 (A,45,35)
R 4154 (A,54,30)
R 4155 (A,51,30)

RS1/16S183J
RS1/16S3901F
RS1/16S1501F
RS1/16S102J
RS1/16S102J

R 4454 (A,138,71)
R 4601 (A,104,23)
R 4602 (A,106,28)
R 4603 (A,79,17)
R 4604 (A,89,27)

RS1/16S101J
RS1/16S473J
RS1/16S473J
RS1/16S473J
RS1/16SS471J

R 4156 (A,45,32)
R 4157 (A,48,31)
R 4160 (A,60,37)
R 4161 (A,60,35)
R 4162 (A,57,30)

RS1/16S1501F
RS1/16S3901F
RS1/16S1002F
RS1/16S1802F
RS1/16S102J

R 4605 (A,71,19)
R 4606 (A,89,30)
R 4607 (A,89,33)
R 4608 (A,88,35)
R 4610 (A,77,42)

RS1/16SS471J
RAB4CQ471J
RAB4CQ471J
RS1/16SS471J
RS1/16SS471J

R 4163 (A,55,38)
R 4164 (A,52,38)
R 4165 (A,49,38)
R 4166 (A,44,38)
R 4167 (A,42,35)

RS1/16S3901F
RS1/16S1501F
RS1/16S102J
RS1/16S272J
RS1/16S102J

R 4611 (A,83,42)
R 4612 (A,78,42)
R 4613 (A,81,42)
R 4614 (A,80,42)
R 4615 (A,71,15)

RS1/16S470J
RS1/16S470J
RS1/16S272J
RS1/16S272J
RS1/16SS471J

R 4168 (A,37,35)
R 4169 (A,42,32)
R 4170 (A,37,32)
R 4171 (A,52,26)
R 4172 (A,59,26)

RS1/16S272J
RS1/16S102J
RS1/16S272J
RS1/16S331J
RS1/16S103J

R 4616 (A,73,15)
R 4617 (A,73,13)
R 4618 (A,88,28)
R 4619 (A,97,29)
R 4621 (A,98,29)

RS1/16S104J
RS1/16S473J
RS1/16SS471J
RS1/16S473J
RS1/16S223J

R 4174 (A,44,27)
R 4175 (A,48,24)
R 4177 (A,36,27)
R 4178 (A,42,24)
R 4180 (A,35,29)

RS1/16S331J
RS1/16S103J
RS1/16S331J
RS1/16S103J
RS1/16S243J

R 4622 (A,95,33)
R 4623 (A,99,29)
R 4624 (A,87,42)
R 4625 (A,65,12)
R 4626 (A,67,29)

RS1/16S473J
RS1/16S0R0J
RAB4CQ473J
RS1/16S103J
RS1/16S473J

R 4181 (A,42,23)
R 4182 (A,47,22)
R 4183 (A,45,22)
R 4184 (A,47,19)
R 4185 (A,48,15)

RS1/16S3002F
RS1/16S223J
RS1/16S1203F
RS1/16S1602F
RS1/16S1502F

R 4627 (A,83,17)
R 4628 (A,65,14)
R 4629 (A,84,42)
R 4630 (A,64,16)
R 4631 (A,82,21)

RAB4CQ472J
RS1/16S0R0J
RS1/16S473J
RS1/16S0R0J
RAB4CQ471J

R 4186 (A,42,21)
R 4187 (A,42,18)
R 4188 (A,42,16)
R 4189 (A,37,19)
R 4190 (A,41,21)

RS1/16S1002F
RS1/16S1002F
RS1/16S101J
RS1/16S153J
RS1/16S100J

R 4642 (A,68,14)
R 4646 (A,69,18)
R 4650 (A,66,29)
R 4651 (A,67,33)
R 4652 (A,67,35)

RS1/16S473J
RS1/16S473J
RS1/16SS471J
RAB4CQ471J
RS1/16SS471J

R 4191 (A,35,14)
R 4192 (A,42,14)

RS1/16S153J
RS1/16S100J

R 4655 (A,77,46)
R 4657 (A,66,28)

RS1/16S102J
RS1/16SS0R0J

<u>Circuit Symbol and No.</u>		<u>Part No.</u>	<u>Circuit Symbol and No.</u>		<u>Part No.</u>
R 4670	(A,85,19)	RS1/16S1502D	R 5014	(A,8,14)	RS1/16S102J
R 4681	(A,10,23)	RS1/16S104J	R 5015	(B,18,67)	RS1/16S105J
R 4682	(A,10,19)	RS1/16S104J	R 5016	(A,12,48)	RS1/16S563J
R 4683	(A,13,22)	RS1/16S102J	R 5017	(A,17,51)	RS1/16S103J
R 4684	(A,13,20)	RS1/16S102J	R 5018	(A,8,55)	RS1/16S103J
R 4701	(A,116,74)	RS1/16S101J	R 5019	(B,6,70)	RS1/16S511J
R 4702	(A,116,73)	RS1/16S101J	R 5020	(B,6,68)	RS1/16S821J
R 4703	(A,98,79)	RS1/16S101J	R 5022	(A,16,24)	RS1/16S181J
R 4704	(A,98,78)	RS1/16S101J	R 5023	(A,14,8)	RS1/16SS0R0J
R 4705	(A,111,77)	RS1/16S471J	R 5024	(A,15,24) (EW)	RS1/16SS151J
R 4707	(A,116,69)	RS1/16S0R0J	R 5030	(A,19,18) (UC)	RS1/16S470J
R 4709	(A,106,58)	RS1/16SS472J	R 5031	(B,13,9)	RS1/16S332J
R 4711	(A,134,74)	RS1/16S471J	R 5101	(B,6,63)	RS1/16S101J
R 4741	(A,106,83)	RS1/16S0R0J	R 5102	(B,11,64)	RS1/16S103J
R 4742	(A,115,80)	RS1/16S0R0J	R 5103	(B,6,64)	RS1/16S471J
R 4743	(A,101,83)	RS1/16S473J	R 5104	(B,9,69)	RS1/16S101J
R 4802	(A,17,21)	RS1/16S0R0J	R 5105	(B,14,67)	RS1/16S104J
R 4803	(A,35,20)	RS1/16S333J	R 5106	(B,14,65)	RS1/16S103J
R 4804	(A,52,29)	RS1/16S0R0J	R 5107	(B,12,63)	RS1/16S473J
R 4805	(A,45,24)	RS1/16S0R0J	R 5108	(B,10,69)	RS1/16S101J
R 4806	(A,37,24)	RS1/16S0R0J	R 5109	(A,7,15)	RS1/16S824J
R 4831	(A,147,24)	RS1/16S153J	CAPACITORS		
R 4832	(A,143,23)	RS1/16S472J	C 4001	(A,19,37)	CKSRYB105K6R3
R 4833	(A,145,23)	RS1/16S472J	C 4002	(A,24,37)	CKSSYF104Z16
R 4834	(A,144,19)	RS1/16S103J	C 4003	(A,31,37)	CKSSYF104Z16
R 4835	(A,104,45)	RS1/16S121J	C 4004	(A,33,37)	CKSSYF104Z16
R 4851	(A,135,23)	RS1/16S5102D	C 4005	(A,32,36)	CKSSYF104Z16
R 4852	(A,137,22)	RS1/16S2202D	C 4006	(A,34,37)	CKSSYF104Z16
R 4853	(A,137,25)	RS1/16S272J	C 4007	(A,36,37)	CKSSYF104Z16
R 4854	(A,131,19)	RS1/16S100J	C 4008	(A,38,38)	CKSSYF104Z16
R 4855	(A,135,17)	RS1/16S102J	C 4009	(A,40,37)	CKSSYF104Z16
R 4858	(A,132,23)	RS1/16S560J	C 4010	(A,39,38)	CKSSYF104Z16
R 4859	(A,128,30)	RS1/16S100J	C 4011	(A,41,41)	CKSSYF104Z16
R 4861	(A,140,44)	RS1/16S104J	C 4012	(A,40,43)	CKSSYF104Z16
R 4862	(A,136,42)	RS1/16S102J	C 4013	(A,42,45)	CKSRYB392K50
R 4863	(A,140,47)	RS1/16S1102F	C 4015	(A,47,44)	CKSRYB105K6R3
R 4864	(A,138,41)	RS1/16S2001F	C 4016	(A,40,47)	CKSSYF104Z16
R 4865	(A,148,40)	RS1/16S3302F	C 4017	(A,41,48)	CKSSYF104Z16
R 4866	(A,146,41)	RS1/16S2401F	C 4018	(A,44,47)	CKSRYB104K16
R 4867	(A,147,44)	RS1/16S5602F	C 4019	(A,44,49)	CKSRYB104K16
R 4868	(A,149,42)	RS1/16S2703F	C 4020	(A,44,52)	CKSRYB104K16
R 4869	(A,148,44)	RS1/16S5602F	C 4021	(A,40,51)	CKSSYF104Z16
R 4901	(A,95,25)	RS1/16S103J	C 4022	(A,46,55)	CKSSYF104Z16
R 4902	(A,91,14)	RS1/16S103J	C 4023	(A,45,55)	CKSSYF104Z16
R 4903	(A,87,20)	RS1/16S392J	C 4024	(A,44,55)	CKSSYF104Z16
R 4904	(A,89,20)	RS1/16S912J	C 4025	(A,41,52)	CKSSYF104Z16
R 4905	(A,87,17)	RS1/16S2003F	C 4026	(A,41,53)	CKSSYF104Z16
R 4906	(A,93,17)	RS1/16S153J	C 4027	(A,41,54)	CKSSYF104Z16
R 4907	(A,89,17)	RS1/16S153J	C 4028	(A,41,55)	CKSSYF104Z16
R 5001	(A,14,25) (EW)	RAB4CQ181J	C 4029	(A,41,56)	CKSSYF104Z16
R 5002	(A,17,35)	RAB4CQ151J	C 4030	(A,44,57)	CKSRYB104K16
R 5003	(B,15,33)	RS1/16S103J	C 4031	(A,43,55)	CKSSYF104Z16
R 5004	(A,17,9)	RAB4CQ151J	C 4032	(A,41,57)	CKSSYF104Z16
R 5005	(B,14,32)	RS1/16S104J	C 4033	(A,41,58)	CKSSYF104Z16
R 5006	(B,5,33)	RS1/16S102J	C 4034	(A,41,59)	CKSSYF104Z16
R 5007	(B,11,37)	RS1/16S473J	C 4035	(A,43,63)	CKSRYB103K50
R 5008	(B,7,32)	RS1/16S473J	C 4036	(A,44,58)	CCSRCH4R0C50
R 5009	(B,12,40)	RS1/16S105J	C 4037	(A,39,61)	CKSSYF104Z16
R 5010	(B,8,38)	RS1/16S333J			
R 5011	(B,4,44)	RS1/16S513J			

Circuit Symbol and No.**Part No.****Circuit Symbol and No.****Part No.**

C 4040 (A,39,62)
C 4042 (A,37,63)
C 4045 (A,36,65)
C 4046 (A,34,65)

CKSSYF104Z16
CCSRCH181J50
CCSRCH9R0D50
CCSRCH9R0D50

C 4182 (A,49,19)
C 4183 (A,52,17)
C 4184 (A,49,17)
C 4186 (A,49,22)

CKSRYF104Z25
CSZSR4R7M25
CKSRYF104Z25
CKSRYF104Z25

C 4047 (A,31,63)
C 4048 (A,30,62)
C 4049 (A,25,62)
C 4050 (A,20,63)
C 4051 (A,16,54)

CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16
CKSRYB105K6R3
CKSSYF104Z16

C 4188 (A,47,17)
C 4225 (A,103,25)
C 4311 (A,11,30)
C 4312 (A,9,28)
C 4313 (A,7,28)

CKSRYF104Z25
CKSRYF104Z25
CKSRYB224K16
CKSRYB104K16
CKSRYB104K16

C 4052 (A,16,46)
C 4054 (A,23,34)
C 4055 (A,16,65)
C 4061 (A,53,80)
C 4062 (A,63,81)

CKSSYF104Z16
CCSRCH101J50
CKSRYF104Z25
CKSRYF104Z25
CCSRCH390J50

C 4314 (A,6,35)
C 4315 (A,6,31)
C 4321 (A,11,123)
C 4322 (A,10,45)
C 4375 (A,11,156)

CKSRYB104K16
CKSRYB104K16
CKSRYB104K16
CKSRYB104K16
CKSRYB104K16

C 4071 (A,47,70)
C 4074 (A,43,41)
C 4075 (A,49,72)
C 4101 (A,63,64)
C 4102 (A,53,63)

CSZS100M10
CKSRYB105K6R3
CKSRYB105K6R3
CKSYF106Z10
CCSRCH470J50

C 4376 (A,10,144)
C 4377 (A,9,25)
C 4378 (A,11,13)
C 4601 (A,77,14)
C 4602 (A,79,20)

CKSRYB104K16
CKSRYB104K16
CKSRYB104K16
CSZSR330M10
CKSRYF104Z25

C 4103 (A,51,63)
C 4104 (A,56,66)
C 4105 (A,59,64)
C 4107 (A,65,64)
C 4111 (A,63,57)

CCSRCH470J50
CKSRYF104Z25
CSZS100M10
CKSYF106Z10
CKSYF106Z10

C 4603 (A,65,10)
C 4605 (A,74,20)
C 4621 (A,68,12)
C 4631 (A,74,6) 10μF
C 4632 (A,78,6) 10μF

CKSRYF104Z25
CKSRYF104Z25
CKSRYB103K50
CCG1138
CCG1138

C 4112 (A,54,57)
C 4113 (A,51,57)
C 4114 (A,60,59)
C 4121 (A,63,53)
C 4122 (A,54,51)

CCSRCH470J50
CCSRCH470J50
CKSRYF104Z25
CKSYF106Z10
CCSRCH470J50

C 4651 (A,61,21)
C 4670 (A,144,83)
C 4681 (A,13,25)
C 4682 (A,13,23)
C 4683 (A,10,17)

CKSRYF104Z25
CKSSYF104Z16
CKSRYB102K50
CKSRYB102K50
CKSRYB102K50

C 4123 (A,51,51)
C 4124 (A,60,54)
C 4131 (A,63,49)
C 4132 (A,54,46)
C 4133 (A,51,46)

CCSRCH470J50
CKSRYF104Z25
CKSYF106Z10
CCSRCH470J50
CCSRCH470J50

C 4684 (A,10,22)
C 4685 (A,88,25)
C 4686 (A,87,23)
C 4687 (A,15,7)
C 4701 (A,119,66)

CKSRYB102K50
CKSRYB102K50
CKSRYB102K50
CKSRYF104Z25
CSZSR330M10

C 4134 (A,60,49)
C 4140 (A,67,47)
C 4141 (A,64,43)
C 4142 (A,62,40)
C 4143 (A,63,59)

CKSRYF104Z25
CKSQYB225K10
CKSRYB105K6R3
CKSRYF104Z25
CSZS100M10

C 4702 (A,105,59)
C 4704 (A,135,78)
C 4801 (A,21,26)
C 4802 (A,20,22)
C 4803 (A,25,26)

CKSSYF104Z16
CKSRYF104Z25
CSZSR4R7M25
CKSRYF104Z25
CSZS100M10

C 4144 (A,65,40)
C 4145 (A,68,40)
C 4151 (A,59,32)
C 4152 (A,48,33)
C 4153 (A,47,35)

CKSRYF104Z25
CKSRYF104Z25
CSZSR220M16
CKSRYB103K50
CCSRCH4R0C50

C 4804 (A,23,22)
C 4805 (A,29,25)
C 4806 (A,26,22)
C 4807 (A,32,26)
C 4808 (A,32,23)

CKSRYF104Z25
CSZSR330M10
CKSRYF104Z25
CSZSR33M35
CKSRYF104Z25

C 4154 (A,47,31)
C 4155 (A,54,38)
C 4156 (A,58,37)
C 4160 (A,44,35)
C 4161 (A,44,32)

CCSRCH4R0C50
CCSRCH4R0C50
CKSRYF104Z25
CKSRYF104Z25
CKSRYF104Z25

C 4809 (A,21,31)
C 4810 (A,25,31)
C 4831 (A,28,31)
C 4832 (A,32,31)
C 4835 (A,102,41)

CKSSYF104Z16
CKSSYF104Z16
CKSSYF104Z16
CKSRYF104Z25
CKSRYF104Z25

C 4162 (A,51,38)
C 4163 (A,57,28)
C 4164 (A,50,28)
C 4165 (A,42,28)
C 4166 (A,39,28)

CKSRYF104Z25
CKSRYB105K6R3
CKSRYB105K6R3
CKSRYB105K6R3
CKSRYF104Z25

C 4836 (A,95,47)
C 4841 (A,126,41)
C 4843 (A,126,49) 68μF/6.3V
C 4844 (A,126,52)
C 4851 (A,146,31)

CKSRYF104Z25
CKSRYB105K6R3
CCH1440
CKSRYF104Z25
CKSRYB104K16

C 4167 (A,47,28)
C 4168 (A,55,29)
C 4169 (A,35,31)
C 4170 (A,58,23)
C 4171 (A,55,23)

CKSRYF104Z25
CKSRYF104Z25
CKSRYB103K50
CSZSR220M16
CSZSR220M16

C 4852 (A,124,32) 68μF/6.3V
C 4853 (A,122,31)
C 4855 (A,134,30) 10μF
C 4856 (A,127,32)
C 4857 (A,135,25)

CCH1440
CKSRYB104K16
CCG1138
CCSRCH102J50
CCSRCH681J50

C 4181 (A,51,21)

CSZSR220M16

C 4858 (A,138,30) 10μF

CCG1138

<u>Circuit Symbol and No.</u>	<u>Part No.</u>
C 4859 (A,134,19)	CKSRYB224K16
C 4860 (A,131,40)	CKSYF106Z10
C 4861 (A,131,42)	CKSYF106Z10
C 4862 (A,140,41)	CCSRCH100D50
C 4863 (A,136,41)	CKSRYB683K16
C 4864 (A,143,42)	CKSRYB104K16
C 4865 (A,141,41)	CKSRYB471K50
C 4866 (A,147,47)	CKSRYB224K16
C 4867 (A,144,53)	CKSRYB104K16
C 4868 (A,143,53)	CKSRYB104K16
C 4869 (A,139,54)	CKSRYB104K16
C 4870 (A,141,54)	CKSRYB224K16
C 4871 (A,147,53)	CKSRYB224K16
C 4872 (A,149,53)	CKSRYB104K16
C 4873 (A,141,65)	CKSQYB105K16
C 4874 (A,139,64)	CKSQYB474K25
C 4875 (A,143,61)	CKSRYB104K16
C 4876 (A,141,61)	CKSQYB474K25
C 4877 (A,138,60)	CKSQYB105K16
C 4878 (A,131,53)	CKSRYB104K16
C 4879 (A,134,54) 33μF/10V	CCH1586
C 4881 (A,136,65)	CKSRYF104Z25
C 4882 (A,128,53)	CKSRYF104Z25
C 4883 (A,146,67)	CKSRYF104Z25
C 4884 (A,137,53)	CKSRYB104K16
C 4885 (A,142,37) 68μF/6.3V	CCH1440
C 4886 (A,150,58)	CKSRYF104Z25
C 4887 (A,147,58)	CKSRYF104Z25
C 4901 (A,92,15)	CKSRYF104Z25
C 4902 (A,98,23)	CSZSR220M10
C 4903 (A,88,15)	CFHXSQ562J16
C 4904 (A,91,23)	CSZSR330M10
C 4905 (A,90,16)	CKSRYB102K50
C 5001 (B,15,8)	CKSRYB104K16
C 5002 (B,8,11)	CKSRYB105K6R3
C 5003 (A,10,37)	CSZSR330M10
C 5004 (A,15,10)	CKSRYB104K16
C 5005 (B,13,38)	CKSRYB104K16
C 5006 (B,8,39)	CKSRYB104K16
C 5007 (B,15,43)	CKSRYB105K6R3
C 5008 (B,16,45)	CKSQYB335K6R3
C 5010 (A,15,16)	CKSRYB104K16
C 5011 (B,5,41)	CKSRYB332K50
C 5012 (B,10,41)	CKSRYB105K6R3
C 5013 (B,5,39)	CKSRYB152K50
C 5014 (B,6,12)	CKSRYB104K16
C 5015 (A,9,52)	CKSRYB473K50
C 5016 (B,14,41)	CKSRYB103K50
C 5017 (A,15,48)	CFHXSQ221J50
C 5018 (A,14,51)	CKSRYB473K50
C 5019 (B,13,55) 10μF	CCG1138
C 5020 (B,9,57) 10μF	CCG1138
C 5021 (A,15,59)	CKSQYB105K16
C 5022 (A,13,59)	CKSQYB105K16
C 5023 (A,10,100) 22pF	CCG1214
C 5024 (B,18,72)	CKSRYB223K50
C 5101 (B,8,62)	CKSRYB104K16
C 5102 (B,6,61)	CKSRYB104K16

Keyboard Unit

Circuit Symbol and No. Part No.

Consists of
Keyboard PCB
Panel PCB



Unit Number:CWM9952(AVIC-N2/XU/UC)
Unit Number:CWM9951(AVIC-X1R/XU/EW)
Unit Name:Keyboard Unit

MISCELLANEOUS

IC 5501 (A,42,7) IC	SBX3050-01
D 5501 (B,64,11) LED (EW)	CL-195SR-CD
D 5504 (A,6,4) LED	CL-190UB2-X
D 5505 (A,6,18) LED	CL-190UB2-X
D 5509 (A,138,8) LED	CL-190UB2-X
D 5510 (A,29,8) LED	CL-190UB2-X
D 5512 (A,78,5) LED (EW)	CL-195SR-CD
D 5513 (A,77,5) LED	CL-195PG-CD
D 5514 (A,90,5) LED (EW)	CL-195SR-CD
D 5515 (A,53,5) LED	CL-195PG-CD
D 5516 (A,100,5) LED	CL-195PG-CD
D 5517 (A,102,5) LED (EW)	CL-195SR-CD
D 5518 (A,89,5) LED	CL-195PG-CD
D 5519 (A,114,5) LED (EW)	CL-195SR-CD
D 5520 (A,127,7) LED (EW)	CL-195SR-CD
D 5521 (A,113,5) LED	CL-195PG-CD
D 5522 (A,125,7) LED	CL-195PG-CD
D 5524 (A,21,12) LED	CL-190UB2-X
D 5526 (A,150,17) LED	CL-190UB2-X
D 5527 (B,39,6) Diode	UDZS6R8(B)
D 5529 (A,150,5) LED	CL-190UB2-X
D 5530 (A,164,11) LED	CL-190UB2-X
D 5531 (A,67,5) LED	CL-195SR-CD
D 5534 (A,65,5) LED	CL-195PG-CD
D 5536 (B,145,11) Diode (EW)	DAN202U
D 5537 (A,89,14) LED	CL-190UB2-X
D 5538 (A,54,5) LED (EW)	CL-195SR-CD
D 5540 (A,79,14) LED	CL-190UB2-X
D 5541 (B,99,10) Diode	1SS355
D 5542 (B,67,10) Diode	UDZS20(B)
D 5901 (A,61,4) LED	SML-010VT
S 5501 (A,118,4) Push Switch	CSG1111
S 5502 (A,94,4) Push Switch	CSG1111
S 5503 (A,105,4) Push Switch	CSG1111
S 5504 (A,29,4) Push Switch	CSG1111
S 5505 (A,58,4) Push Switch	CSG1111
S 5506 (A,138,4) Push Switch	CSG1111
S 5507 (A,126,4) Push Switch	CSG1111
S 5508 (A,70,4) Push Switch	CSG1111
S 5509 (A,82,4) Push Switch	CSG1111
S 5510 (A,11,11) Encoder(VOLUME)	CSD1106
S 5511 (A,156,11) Switch(SELECT)	CSX1075
S 5901 (A,104,21) Push Switch	CSG1111

RESISTORS

R 5501 (B,97,6)	RS1/16SS121J
R 5502 (A,147,11)	RS1/16S202J
R 5503 (A,101,8)	RS1/16S392J

Circuit Symbol and No.**Part No.**

R 5504	(A,96,6)	RS1/16S123J
R 5505	(A,60,6)	RS1/16S122J
R 5506	(A,25,4)	RS1/16S202J
R 5507	(A,134,3)	RS1/16S122J
R 5508	(B,22,14)	RS1/16S151J
R 5509	(B,24,14)	RS1/16S151J
R 5510	(B,93,11) (EW)	RS1/16SS181J

R 5511	(B,60,11)	RS1/16SS121J
R 5512	(B,59,10)	RS1/16SS121J
R 5513	(A,144,3)	RS1/16S202J
R 5514	(A,144,4)	RS1/16S392J
R 5515	(A,156,19)	RS1/16S123J

R 5516	(A,132,3)	RS1/16S102J
R 5517	(A,67,8)	RS1/16S151J
R 5518	(B,62,15)	RS1/16S820J
R 5519	(B,57,10)	RS1/16SS121J
R 5520	(B,146,2)	RS1/16S151J

R 5521	(B,144,3)	RS1/16S151J
R 5522	(B,98,6)	RS1/16SS121J
R 5524	(B,145,7)	RS1/16SS121J
R 5525	(B,51,10)	RS1/16SS472J
R 5526	(B,97,11) (EW)	RS1/16SS0R0J

R 5527	(B,95,11) (EW)	RS1/16SS181J
R 5528	(B,94,11) (EW)	RS1/16SS181J
R 5529	(B,92,5)	RS1/16SS181J
R 5530	(B,95,6)	RS1/16SS121J
R 5531	(B,30,14)	RS1/16S151J

R 5532	(B,96,6)	RS1/16SS121J
R 5533	(A,133,5) (EW)	RS1/16S181J
R 5534	(B,144,7)	RS1/16SS121J
R 5535	(B,48,4)	RS1/16S470J
R 5536	(B,146,7)	RS1/16SS121J

R 5537	(A,133,3) (EW)	RS1/16S181J
R 5538	(B,147,7)	RS1/16SS121J
R 5539	(A,136,10) (EW)	RS1/16S181J
R 5540	(B,94,6)	RS1/16SS121J
R 5541	(B,146,8)	RS1/16SS121J

R 5542	(A,138,12) (EW)	RS1/16S181J
R 5543	(B,55,10)	RS1/16SS121J
R 5548	(A,129,6) (EW)	RS1/16S0R0J
R 5549	(A,148,11)	RS1/16S122J
R 5550	(B,22,10)	RS1/16S392J

R 5558	(B,64,5)	RS1/16S121J
R 5561	(B,65,5)	RS1/16S121J
R 5563	(B,44,7)	RS1/16S101J
R 5565	(B,67,5)	RS1/16S121J
R 5566	(A,161,4)	RS1/16SS151J

R 5568	(A,160,4)	RS1/16SS151J
R 5573	(B,68,5)	RS1/16S151J
R 5574	(B,96,11) (EW)	RS1/16SS181J
R 5575	(B,27,14)	RS1/16S151J
R 5585	(A,72,6)	RS1/16S181J

R 5587	(B,25,12)	RS1/16S151J
R 5588	(B,28,12)	RS1/16S151J
R 5589	(B,146,4)	RS1/16S151J
R 5590	(A,159,5)	RS1/16SS151J
R 5592	(B,62,13) (UC)	RS1/16S150J

R 5593	(A,140,12) (UC)	RS1/16S270J
R 5596	(B,68,13)	RS1/16SS121J
R 5597	(B,65,14)	RS1/16S820J

Circuit Symbol and No.**Part No.**

R 5598	(B,66,14)	RS1/16S121J
R 5599	(B,61,10)	RS1/16SS121J
R 5904	(A,61,7)	RS1/16S151J

CAPACITORS

C 5509	(B,36,3)	CSZSQ100M6R3
C 5516	(B,36,5)	CKSRYB103K50
C 5520	(A,42,3)	CKSYB106K6R3

P**Unit Number: CWX2960(AVIC-N2/XU/UC)****Unit Number: CWX2929(AVIC-X1R/XU/EW)****Unit Name: GPS Unit****MISCELLANEOUS**

IC 401	IC	UPC2749T
IC 402	IC	UPB1027GS
IC 441	IC	NJM2100V
IC 461	IC	ADC12H034CIMS
IC 501	IC	PD3390A

IC 502	IC (EW)	PD6472A
	IC (UC)	PD6473A
IC 503	IC	M5M5V216ATP-70HI
IC 504	IC	MAX6364PUT29
IC 532	IC (EW)	LC72720YVS

Q 441	Transistor	2SB1132
D 401	Diode	1SV314
D 501	Diode	RB751V40
L 401	Inductor	CTF1549
L 402	Inductor	CTF1486

L 403	Inductor	CTF1486
L 404	Inductor	LCSA3N3R1608
L 405	Inductor	LCYB22NJ1608
L 406	Inductor	LCYB22NJ1608
L 407	Inductor	CTF1410

L 408	Inductor (EW)	CTF1410
	Inductor (UC)	CTF1556
L 409	Inductor	LCTB1R0K2125
L 410	Inductor	CTF1547
L 412	Inductor	CTF1547

L 413	Inductor	CTF1547
L 414	Inductor	CTF1547
L 415	Inductor	CTF1547
L 416	Inductor	CTF1547
L 417	Inductor	CTF1547

L 418	Inductor	CTF1410
L 441	Inductor	CTF1410
L 442	Inductor	CTF1410
L 461	Inductor	CTF1410
L 462	Inductor	CTF1410

L 467	Inductor	CTF1547
L 468	Inductor	CTF1547
L 469	Inductor	CTF1410
L 501	Inductor	CTF1410
L 502	Inductor	CTF1410

L 503	Inductor	CTF1410
L 504	Inductor	CTF1410
L 531	Inductor	CTF1410

<u>Circuit Symbol and No.</u>		<u>Part No.</u>	<u>Circuit Symbol and No.</u>		<u>Part No.</u>
X 401	TCXO 16.368MHz	CWX2381	R 532	(EW)	RS1/16SS104J
X 501	Radiator 32.768kHz	CSS1319	R 533	(EW)	RS1/16SS332J
				(UC)	RS1/16SS103J
X 502	Radiator 20.00MHz	CSS1549			
X 532	Radiator 4.332MHz (EW)	CSS1550	R 534		RS1/16SS103J
F 401	Filter	CTF1548	R 535		RS1/16SS103J
			R 536		RS1/16SS0R0J
			R 537	(EW)	RS1/16SS0R0J
			R 538	(EW)	RS1/16SS0R0J
RESISTORS			CAPACITORS		
R 401		RS1/16SS472J	C 401		CCSRCH100D50
R 402		RS1/16SS472J	C 402		CCSSCH101J50
R 403		RS1/16SS122J	C 403		CKSSYB104K10
R 404		RS1/16SS622J	C 404		CCSSCH101J50
R 405		RS1/16SS100J	C 405		CCSRUJ220J50
R 406		RS1/16S271J			
R 407		RS1/16S2R2J			
R 441		RN1/16SC10R0D			
R 442		RN1/16SE1501D	C 406		CCSRUJ220J50
R 443		RN1/16SE2402D	C 407		CKSSYB333K16
			C 408		CKSSYB182K50
R 444		RN1/16SE3302D	C 409		CSZS100M6R3
R 445		RN1/16SE4702D	C 410		CKSSYB103K16
R 446		RN1/16SE4702D			
R 447		RS1/16S432J	C 411		CKSSYB102K50
R 448		RN1/16SE1002D	C 412		CKSSYB102K50
			C 413		CKSSYB104K10
R 449		RN1/16SE2202D	C 414		CKSSYB104K10
R 450		RN1/16SE3302D	C 415		CKSSYB104K10
R 451		RS1/16S103J			
R 452		RS1/16SS102J	C 416		CKSSYB104K10
R 454		RS1/16SS102J	C 417		CKSSYB104K10
			C 418		CKSSYB102K50
R 460		RS1/16S0R0J	C 419		CKSSYB104K10
R 461		RS1/16SS102J	C 420		CKSSYB104K10
R 462		RS1/16SS102J			
R 463		RAB4CQ102J	C 421		CKSSYB102K50
R 464		RAB4CQ333J	C 422		CKSSYB103K16
			C 423		CKSSYB104K10
R 465		RS1/16SS102J	C 424		CCSRCH102J50
R 468	(EW)	RS1/16SS471J	C 425		CCSRCH271J50
R 469	(EW)	RAB4CQ471J			
R 470		RAB4CQ471J	C 426		CCSRCH102J50
R 471		RAB4CQ104J	C 427		CKSSYB104K10
			C 428		CKSSYB103K16
R 477		RS1/16SS222J	C 429		CCSRCH301J50
R 478		RS1/16SS222J	C 430		CCSSCH120J50
R 479		RS1/16SS222J			
R 480		RS1/16SS332J	C 431		CCSRCH301J50
R 481		RS1/16SS332J	C 432		CKSSYB103K16
			C 433		CCSRCH101J50
R 482		RS1/16SS223J	C 434		CKSSYB102K50
R 483		RS1/16SS473J	C 435		CKSSYB103K16
R 501		RS1/16SS0R0J			
R 502		RS1/16SS102J	C 436		CKSSYB104K10
R 503		RS1/16SS154J	C 441		CKSRYB104K16
			C 442		CCSRCH101J50
R 508	(EW)	RS1/16SS472J	C 443		CKSRYB104K16
	(UC)	RS1/16SS103J	C 444		CKSSYB103K16
R 509		RS1/16SS473J			
R 510		RS1/16SS102J	C 445		CKSSYB104K10
R 511		RS1/16SS103J	C 461	22μF/6.3V	CCH1408
			C 462		CKSRYB104K16
R 512		RS1/16SS473J	C 463		CKSRYB104K16
R 513		RS1/16SS103J	C 464		CKSSYB103K16
R 514		RS1/16SS473J			
R 515		RS1/16SS473J	C 465		CKSSYB103K16
R 517		RS1/16SS103J	C 466		CKSSYB103K16
			C 467		CKSSYB103K16
R 519		RS1/16SS473J	C 468		CKSSYB104K10
R 521		RS1/16SS473J	C 469		CSZS100M10

Circuit Symbol and No.**Part No.**

A	C 470	CKSSYB104K10
	C 471	CCSSCH101J50
	C 501	CKSSYB104K10
	C 502	CCSRCH150J50
	C 503	CCSRCH150J50
■	C 504	CKSSYB104K10
	C 506	CKSSYB104K10
	C 507	CKSSYB104K10
	C 508	CKSSYB104K10
	C 509	CKSSYB104K10
B	C 511	CKSSYB104K10
	C 512	CKSSYB104K10
	C 514	CSZS100M6R3
	C 515	CKSSYB104K10
	C 516	CKSSYB104K10
■	C 517	CKSSYB104K10
	C 518	CKSSYB104K10
	C 535 (EW)	CSZS100M6R3
	C 539 (EW)	CCSRCH100D50
	C 540 (EW)	CCSRCH100D50
C	C 541 (EW)	CCSRCH561J50
	C 542 (EW)	CKSSYB104K10
	C 543 (EW)	CSZS100M6R3
	C 544 (EW)	CCSRCH331J50
	C 545 (EW)	CKSSYB104K10

D**Unit Number:CWX2941****Unit Name:DVD Core Unit(MS3)****MISCELLANEOUS**

D	IC 1101	IC	AN8703FH
	IC 1201	IC	BA5985FM
	IC 1202	IC	AN8471SAT1
	IC 1301	IC	MNZS26EDCUB
	IC 1401	IC	TC74LCX245FT
■	IC 1402	IC	TC7SH04FU
	IC 1403	IC	TC74LCX244FT
	IC 1405	IC	TC74LCX244FT
	IC 1501	IC	K4S641632H-TC75
	IC 1502	IC	TC74VCX74FT
E	IC 1503	IC	MN677531KAUB
	IC 1504	IC	TC74VCX74FT
	IC 1505	IC	TC7PA04FU
	IC 1507	IC	SM8707FV
	IC 1602	IC	NJM2100M
■	IC 1604	IC	NJM2100V
	IC 1605	IC	PCM1742KE
	IC 1701	IC	PE5395B
	IC 1702	IC	M5M5V216ATP-70HI
	IC 1705	IC	PD6474B
F	IC 1706	IC	TC7SH08FU
	Q 1101	Transistor	2SB1260
	Q 1102	Transistor	2SB1260
	Q 1103	Transistor	UN2211
	Q 1104	Transistor	2SB709A
■	Q 1105	Transistor	2SD601A
	Q 1201	Transistor	DTC124EU
	Q 1501	Transistor	2SA1037K

Circuit Symbol and No.**Part No.**

D 1101	Diode	1SS355
D 1102	Diode	1SS355
D 1301	Diode	UDZ2R7(B)
D 1302	Chip LED	CL205IRXTU
L 1301	Inductor	CTF1409
L 1302	Inductor	CTF1394
L 1303	Inductor	CTF1395
L 1305	Inductor	CTF1409
L 1504	Inductor	CTF1394
L 1505	Inductor	CTF1409
L 1506	Inductor	CTF1473
L 1507	Inductor	CTF1473
L 1508	Inductor	CTF1473
L 1509	Inductor	CTF1399
L 1510	Inductor	CTF1409
L 1518	Inductor	CTF1385
L 1520	Inductor	CTF1399
L 1522	Inductor	CTF1395
L 1605	Inductor	CTF1379
L 1701	Inductor	CTF1395
L 1702	Inductor	CTF1409
L 1703	Inductor	CTF1473
L 1704	Inductor	CTF1473
X 1501	Radiator 27MHz	CSS1609
X 1701	Ceramic Resonator 4.97MHz	CSS1575
VR1502	Semi-Fixed 2.2kΩ(B)	CCP1444

RESISTORS

R 1101	RS1/16SS101J
R 1102	RS1/16SS3R9J
R 1103	RS1/16SS3R9J
R 1104	RS1/16SS3R9J
R 1105	RS1/16SS3R9J
R 1106	RS1/16SS330J
R 1107	RS1/16SS3R9J
R 1108	RS1/16SS3R9J
R 1109	RS1/16SS3R9J
R 1110	RS1/16SS3R9J
R 1111	RS1/16SS272J
R 1112	RS1/16SS472J
R 1113	RS1/16SS102J
R 1124	RS1/16SS273J
R 1125	RS1/16SS273J
R 1126	RS1/16SS224J
R 1130	RS1/16SS0R0J
R 1131	RS1/16SS0R0J
R 1132	RS1/16SS0R0J
R 1133	RS1/16S2402D
R 1134	RS1/16S1002D
R 1135	RS1/16S2702D
R 1140	RS1/16SS105J
R 1141	RS1/16SS105J
R 1142	RS1/16SS105J
R 1151	RS1/16SS103J
R 1152	RS1/16SS103J
R 1201	RS1/16SS221J
R 1202	RS1/16SS393J
R 1203	RS1/16SS303J
R 1205	RS1/16SS0R0J

<u>Circuit Symbol and No.</u>	<u>Part No.</u>	<u>Circuit Symbol and No.</u>	<u>Part No.</u>	
R 1206	RS1/16SS102J	R 1383	RS1/16SS103J	
R 1209	RS1/16SS221J	R 1391	RS1/16SS103J	
R 1210	RS1/16SS393J	R 1392	RS1/16SS103J	A
R 1211	RS1/16SS393J	R 1393	RS1/16SS103J	
R 1212	RS1/16SS393J	R 1394	RS1/16SS471J	
R 1213	RS1/16SS393J	R 1395	RS1/16SS0R0J	
R 1214	RS1/16SS221J	R 1396	RS1/16SS0R0J	
R 1215	RS1/16SS1R0J	R 1401	RS1/16SS101J	
R 1216	RS1/16SS1R0J	R 1403	RAB4CQ220J	
R 1218	RS1/16SS221J	R 1404	RAB4CQ220J	
R 1219	RS1/16SS221J	R 1405	RAB4CQ220J	
R 1220	RS1/16SS221J	R 1406	RAB4CQ220J	
R 1221	RS1/16SS822J	R 1407	RS1/16SS220J	
R 1222	RS1/16SS822J	R 1408	RS1/16SS103J	B
R 1223	RS1/16SS822J	R 1409	RS1/16SS820J	
R 1224	RS1/16SS563J	R 1410	RS1/16SS820J	
R 1225	RS1/16SS243J	R 1411	RAB4CQ0R0J	
R 1226	RS1/16SS473J	R 1412	RS1/16SS100J	
R 1227	RS1/16SS473J	R 1413	RS1/16SS820J	
R 1228	RS1/16SS1R0J	R 1414	RAB4CQ820J	
R 1229	RS1/16SS1R0J	R 1415	RS1/16SS103J	
R 1230	RS1/16SS1R0J	R 1418	RS1/16SS221J	
R 1232	RS1/16SS822J	R 1421	RS1/16SS221J	
R 1233	RS1/16SS243J	R 1423	RS1/16SS221J	
R 1234	RS1/16S391J	R 1424	RS1/16SS221J	C
R 1235	RS1/16S471J	R 1425	RAB4CQ221J	
R 1236	RS1/16SS513J	R 1426	RAB4CQ221J	
R 1237	RS1/16SS513J	R 1501	RS1/16SS220J	
R 1301	RS1/16SS222J	R 1502	RAB4CQ220J	
R 1321	RS1/16SS104J	R 1503	RS1/16S101J	
R 1322	RS1/16SS0R0J	R 1504	RAB4CQ220J	
R 1323	RS1/16SS221J	R 1505	RS1/16S101J	
R 1324	RS1/16SS221J	R 1508	RAB4CQ220J	
R 1334	RS1/16SS221J	R 1512	RAB4CQ220J	
R 1336	RS1/16SS103J	R 1518	RAB4CQ220J	D
R 1337	RS1/16SS103J	R 1522	RAB4CQ220J	
R 1338	RS1/16SS472J	R 1523	RS1/16S0R0J	
R 1339	RS1/16SS273J	R 1527	RAB4CQ220J	
R 1340	RS1/16SS472J	R 1533	RS1/16SS201J	
R 1341	RS1/16SS273J	R 1534	RAB4CQ220J	
R 1342	RS1/16SS273J	R 1538	RAB4CQ220J	
R 1344	RS1/16SS273J	R 1539	RS1/16SS221J	
R 1349	RS1/16SS562J	R 1542	RS1/16SS103J	
R 1350	RS1/16SS242J	R 1543	RS1/16SS680J	
R 1352	RS1/16S2702D	R 1544	RS1/16SS0R0J	
R 1353	RS1/16SS102J	R 1545	RS1/16SS0R0J	E
R 1360	RS1/16SS153J	R 1549	RS1/16SS0R0J	
R 1361	RS1/16SS105J	R 1550	RS1/16SS0R0J	
R 1362	RS1/16SS473J	R 1551	RS1/16SS0R0J	
R 1363	RS1/16SS101J	R 1552	RS1/16SS471J	
R 1364	RS1/16SS123J	R 1553	RS1/16S68R0D	
R 1365	RS1/16SS101J	R 1554	RS1/16SS471J	
R 1367	RS1/16SS473J	R 1555	RS1/16SS0R0J	
R 1369	RS1/16SS473J	R 1556	RS1/16SS750J	
R 1375	RS1/16SS103J	R 1557	RS1/16SS0R0J	
R 1376	RS1/16SS103J	R 1558	RS1/16SS622J	
R 1377	RS1/16SS103J	R 1559	RAB4CQ0R0J	F
R 1378	RS1/16SS103J	R 1560	RS1/16SS122J	
R 1379	RS1/16SS103J	R 1561	RS1/16SS162J	
R 1380	RS1/16SS103J	R 1562	RS1/16SS0R0J	

Circuit Symbol and No.**Part No.****Circuit Symbol and No.****Part No.**

R 1563 RS1/16SS4R7J
 R 1564 RAB4CQ0R0J
 R 1565 RS1/16S101J
 R 1566 RS1/16S101J

R 1716
 R 1717
 R 1718
 R 1720

RS1/16SS221J
 RS1/16SS104J
 RS1/16SS104J
 RS1/16SS104J

R 1567 RAB4CQ0R0J
 R 1568 RS1/16S101J
 R 1569 RS1/16S101J
 R 1570 RS1/16S101J
 R 1571 RS1/16S220J

R 1721
 R 1722
 R 1723
 R 1724
 R 1725

RS1/16SS104J
 RS1/16SS104J
 RS1/16SS104J
 RS1/16SS222J
 RS1/16SS223J

R 1572 RAB4CQ0R0J
 R 1573 RS1/16SS473J
 R 1574 RAB4CQ0R0J
 R 1575 RAB4CQ0R0J
 R 1576 RAB4CQ0R0J

R 1726
 R 1727
 R 1728
 R 1730
 R 1731

RS1/16SS104J
 RS1/16SS104J
 RS1/16SS104J
 RS1/16SS221J
 RS1/16SS104J

R 1577 RAB4CQ0R0J
 R 1578 RS1/16SS472J
 R 1579 RS1/16SS101J
 R 1587 RS1/16SS101J
 R 1595 RS1/16SS472J

R 1732
 R 1733
 R 1734
 R 1735
 R 1736

RS1/16SS0R0J
 RS1/16SS104J
 RS1/16SS221J
 RS1/16SS104J
 RS1/16SS104J

R 1596 RS1/16SS472J
 R 1597 RS1/16SS104J
 R 1598 RS1/16SS270J
 R 1601 RS1/16SS821J
 R 1602 RS1/16SS821J

R 1737
 R 1738
 R 1739
 R 1740
 R 1741

RS1/16SS104J
 RS1/16SS104J
 RS1/16SS330J
 RS1/16SS0R0J
 RS1/16SS0R0J

R 1603 RS1/16SS0R0J
 R 1604 RS1/16SS0R0J
 R 1605 RS1/16SS102J
 R 1606 RS1/16SS102J
 R 1607 RS1/16SS222J

R 1742
 R 1746
 R 1748
 R 1749
 R 1750

RS1/16SS473J
 RS1/16SS104J
 RS1/16SS104J
 RS1/16SS103J
 RS1/16SS473J

R 1608 RS1/16SS222J
 R 1609 RS1/16SS472J
 R 1610 RS1/16SS472J
 R 1611 RS1/16SS472J
 R 1612 RS1/16SS472J

R 1751
 R 1752
 R 1753
 R 1754
 R 1756

RS1/16SS103J
 RS1/16SS104J
 RS1/16SS104J
 RS1/16SS104J
 RS1/16SS104J

R 1613 RS1/16SS103J
 R 1614 RS1/16SS103J
 R 1615 RS1/16SS472J
 R 1616 RS1/16SS472J
 R 1626 RS1/16SS0R0J

R 1757
 R 1758
 R 1759
 R 1760
 R 1761

RS1/16SS472J
 RS1/16SS104J
 RS1/16SS104J
 RS1/16S1002D
 RS1/16SS105J

R 1627 RS1/16SS0R0J
 R 1628 RS1/16SS0R0J
 R 1637 RS1/16SS104J
 R 1638 RS1/16SS104J
 R 1642 RS1/16SS221J

R 1762
 R 1763
 R 1764
 R 1765
 R 1767

RS1/16SS473J
 RS1/16SS104J
 RS1/16SS104J
 RS1/16SS104J
 RS1/16SS104J

R 1643 RS1/16SS221J
 R 1645 RS1/16SS0R0J
 R 1647 RS1/16SS221J
 R 1648 RS1/16SS221J
 R 1649 RS1/16SS101J

R 1768
 R 1769
 R 1770
 R 1771
 R 1773

RS1/16SS473J
 RS1/16SS104J
 RS1/16SS473J
 RS1/16SS473J
 RS1/16SS103J

R 1650 RS1/16SS101J
 R 1651 RS1/16SS101J
 R 1653 RS1/16SS473J
 R 1656 RS1/16SS102J
 R 1701 RS1/16SS473J

R 1790
 R 1792
 R 1794
 R 1795
 R 1796

RS1/16SS473J
 RS1/16SS0R0J
 RS1/16SS222J
 RS1/16SS104J
 RS1/16SS473J

R 1704 RS1/16SS473J
 R 1706 RS1/16SS104J
 R 1707 RS1/16SS221J
 R 1708 RS1/16SS221J
 R 1714 RS1/16SS221J

R 1797
 R 1798
 R 1801
 R 1802
 R 1803

RS1/16SS104J
 RS1/16SS104J
 RS1/16SS104J
 RS1/16SS104J
 RS1/16SS104J

R 1715 RS1/16SS473J

R 1804

RS1/16SS102J

<u>Circuit Symbol and No.</u>	<u>Part No.</u>	<u>Circuit Symbol and No.</u>	<u>Part No.</u>	
R 1805	RS1/16SS102J	C 1313	CKSSYB104K10	
<u>CAPACITORS</u>		C 1314	CKSRYB224K10	
		C 1315	CKSRYB102K50	A
		C 1316	CKSRYB393K16	
		C 1317	CKSSYB104K10	
		C 1318	CKSSYB103K16	
		C 1319	CKSSYB104K10	
		C 1320	CKSSYB103K16	
		C 1329	CKSSYB104K10	
C 1101	CSZSC470M16			
C 1102	CSZSR470M6R3	C 1330	CKSRYB183K25	
C 1103	CKSSYB104K10	C 1331	CCSSCH470J50	
C 1104	CKSSYB103K16	C 1332	CKSRYB224K10	
C 1105	CSZSR101M6R3	C 1333	CKSRYB224K10	
		C 1334	CKSRYB102K50	B
C 1106	CKSSYB104K10			
C 1107	CKSSYB103K16	C 1335	CKSSYB562K25	
C 1108	CKSSYB104K10	C 1336	CKSSYB104K10	
C 1109	CKSRYB473K25	C 1337	CKSRYB102K50	
C 1110	CKSRYB473K25	C 1338	CKSRYB102K50	
		C 1339	CKSRYB102K50	
C 1111	CKSSYB103K16			
C 1112	CKSRYB105K10	C 1340	CKSSYB104K10	
C 1113	CKSRYB105K10	C 1341	CCSSCH101J50	
C 1114	CKSSYB103K16	C 1342	CKSRYB391K50	
C 1121	CKSSYB221K50	C 1343	CKSRYB471K50	
		C 1344	CKSRYB331K50	
C 1122	CKSRYB393K16			
C 1124	CKSSYB221K50	C 1346	CKSRYB224K10	C
C 1125	CKSSYB104K10	C 1347	CKSSYB104K10	
C 1126	CKSSYB104K10	C 1348	CKSSYB104K10	
C 1127	CKSSYB104K10	C 1349	CKSSYB104K10	
		C 1350	CKSSYB104K10	
C 1128	CKSRYB472K50			
C 1129	CKSSYB104K10	C 1351	CKSSYB104K10	
C 1132	CKSRYB561K50	C 1352	CKSSYB104K10	
C 1133	CKSRYB561K50	C 1401	CCSSCH181J25	
C 1134	CKSRYB273K16	C 1402	CKSSYB104K10	
		C 1403	CKSSYB104K10	
C 1135	CKSSYB473K10			
C 1136	CKSSYB104K10	C 1404	CKSSYB104K10	D
C 1137	CKSSYB104K10	C 1406	CKSSYB104K10	
C 1138	CKSSYB104K10	C 1501	CKSRYB224K10	
C 1139	CKSSYB104K10	C 1502	CKSRYB224K10	
		C 1503	CKSRYB224K10	
C 1201	CKSSYB104K10			
C 1204	CEV101M16	C 1504	CKSRYB224K10	
C 1205	CKSRYB104K16	C 1505	CKSRYB224K10	
C 1206	CKSRYB103K50	C 1507	CKSRYB224K10	
C 1207	CKSRYB103K50	C 1508	CKSRYB224K10	
		C 1510	CSZSC101M10	
C 1208	CCSSCH5R0C50			
C 1209	CCSSCH470J50	C 1513	CKSRYB224K10	
C 1213	CKSRYB104K25	C 1514	CKSRYB224K10	E
C 1214	CKSRYB104K25	C 1515	CKSRYB224K10	
C 1215	CKSSYB104K10	C 1516	CKSRYB224K10	
		C 1517	CKSRYB224K10	
C 1216	CSZSC470M16			
C 1217	CKSRYB104K25	C 1518	CKSRYB224K10	
C 1218	CSZSC470M16	C 1519	CKSRYB224K10	
C 1221	CKSRYB104K25	C 1520	CKSRYB224K10	
C 1301	CKSSYB104K10	C 1521	CKSRYB224K10	
		C 1522	CKSRYB224K10	
C 1302	CKSSYB104K10			
C 1303	CKSSYB224K6R3	C 1523	CKSRYB224K10	
C 1304	CKSSYB104K10	C 1524	CKSRYB224K10	
C 1305	CKSSYB224K6R3	C 1525	CKSSYB104K10	F
C 1306	CKSSYB471K50	C 1526	CKSRYB224K10	
		C 1527	CKSRYB224K10	
C 1307	CKSSYB104K10			
C 1308	CKSRYB224K10	C 1528	CKSSYB104K10	
C 1309	CKSSYB104K10			
C 1310	CKSSYB104K10			
C 1311	CKSSYB103K16			
C 1312	CKSSYB103K16			
C 1312	CKSSYB103K16			

Circuit Symbol and No.**Part No.**

C 1529 CKSRYB224K10
 C 1530 CKSRYB224K10
 C 1531 CKSSYB471K50
 C 1532 CKSSYB104K10

C 1533 CKSSYB104K10
 C 1534 CKSRYB224K10
 C 1535 CKSSYB104K10
 C 1538 CKSSYB104K10
 C 1539 CKSRYB105K10

C 1540 CKSRYB105K10
 C 1542 CKSSYB104K10
 C 1543 CSZS4R7M16
 C 1544 CKSSYB104K10
 C 1547 CSZSR330M10

C 1548 CKSSYB104K10
 C 1549 CKSSYB104K10
 C 1550 CKSSYB104K10
 C 1551 CKSSYB104K10
 C 1552 CKSSYB104K10

C 1554 CKSSYB104K10
 C 1555 CKSSYB104K10
 C 1556 CKSSYB104K10
 C 1557 CKSSYB104K10
 C 1558 CKSSYB104K10

C 1559 CKSSYB104K10
 C 1560 CKSSYB104K10
 C 1562 CKSSYB104K10
 C 1563 CKSSYB104K10
 C 1564 CKSSYB104K10

C 1566 CCSSCH7R0D50
 C 1567 CCSSCH7R0D50
 C 1605 CKSSYB471K50
 C 1606 CKSSYB471K50
 C 1609 CKSRYB104K16

C 1610 CKSRYB224K10
 C 1611 CSZSR100M16
 C 1612 CKSQYB225K10
 C 1615 CCSRCH471J50
 C 1616 CCSRCH471J50

C 1617 CCSRCH471J50
 C 1618 CCSRCH471J50
 C 1619 CKSRYB104K16
 C 1641 CKSRYB104K16
 C 1650 CKSYB475K16

C 1651 CKSYB475K16
 C 1676 CSZSR100M10
 C 1701 CKSRYB224K10
 C 1702 CKSRYB224K10
 C 1703 CKSRYB224K10

C 1706 CKSRYB224K10
 C 1707 CKSRYB224K10
 C 1708 CKSSYB471K50
 C 1710 CKSRYB224K10
 C 1711 CKSSYB103K16

C 1712 CKSSYB103K16
 C 1713 CKSRYB224K10
 C 1716 CKSRYB224K10
 C 1717 CKSSYB104K10
 C 1718 CKSRYB224K10

C 1719 CKSSYB104K10

Circuit Symbol and No.**Part No.**

C 1720 CKSRYB224K10
 C 1721 CKSSYB104K10
 C 1722 CKSRYB224K10
 C 1723 CKSRYB224K10

C 1724 CKSSYB103K16
 C 1727 CKSSYB224K6R3

E**Unit Number:CWX3154****Unit Name:Compound Unit(A)**

Q 1299 Photo-taransistor CPT231SCTD
 S 1201 Spring Switch(12cm) CSN1069
 S 1202 Spring Switch(8cm) CSN1069
 S 1203 Spring Switch(DISC SENS) CSN1069
 S 1204 Spring Switch(DISC SENS) CSN1070

S 1205 Spring Switch(8cm) CSN1070
 R 1298 RS1/16S0R0J
 R 1299 RS1/16S0R0J

F**Unit Number:CWX3156****Unit Name:Compound Unit(B)**

S 1206 Switch(CLAMP) CSN1051

M**Unit Number:CZW3087****Unit Name:Main Unit****MISCELLANEOUS**

IC 3801 IC BA00AST
 IC 3802 IC BA6247FP
 IC 3803 IC TA78L05F
 IC 3804 IC TC7S14FU
 IC 3805 Photo-interrupter GP2L24B

Q 3801 Transistor DTC124EU
 Q 3802 Transistor 2SA1037K
 Q 3803 Transistor DTC124EU
 D 3801 Diode UDZS5R6(B)
 D 3802 Diode 1SS355

L 3801 Inductor LCTA150J2520
 L 3802 Inductor LCTA150J2520

RESISTORS

R 3801 RS1/16S103J
 R 3802 RS1/16S222J
 R 3803 RS1/16S471J
 R 3804 RS1/16S102J
 R 3805 RS1/16S102J

R 3806 RS1/16S102J
 R 3807 RS1/16S102J
 R 3808 RS1/16S103J
 R 3809 RS1/16S222J
 R 3810 RS1/16S222J

R 3811 RS1/16S102J
 R 3812 RS1/16S102J

<u>Circuit Symbol and No.</u>	<u>Part No.</u>
R 3813	RS1/16S472J
R 3814	RS1/16S102J
R 3815	RS1/16S0R0J
R 3816	RS1/16S0R0J
R 3817	RS1/16S0R0J
R 3818	RS1/16S473J
R 3819	RS1/16S0R0J
R 3821	RS1/16S473J
R 3822	RS1/16S512J
R 3823	RS1/16S0R0J

CAPACITORS

C 3801	CKSQYB105K16
C 3802	CKSQYB105K16
C 3803	CKSRYB104K16
C 3804	CKSRYB104K16
C 3805	CKSRYB104K16
C 3806	CKSRYB223K50
C 3807	CKSRYB223K50
C 3808	CEVW101M16
C 3809	CEVW101M16
C 3810	CKSRYB104K16
C 3811	CEV100M16
C 3812	CKSRYB104K16
C 3813	CKSRYB102K50
C 3815	CKSQYB104K50
C 3819	CEVW101M16

N

Unit Number:CZW3088

Unit Name:SW Unit

S 3831	Switch (ANGLE)	CSN1052
S 3832	Switch (LIFT)	CSN1052

O

Unit Number:CZW3089

Unit Name:Volume Unit

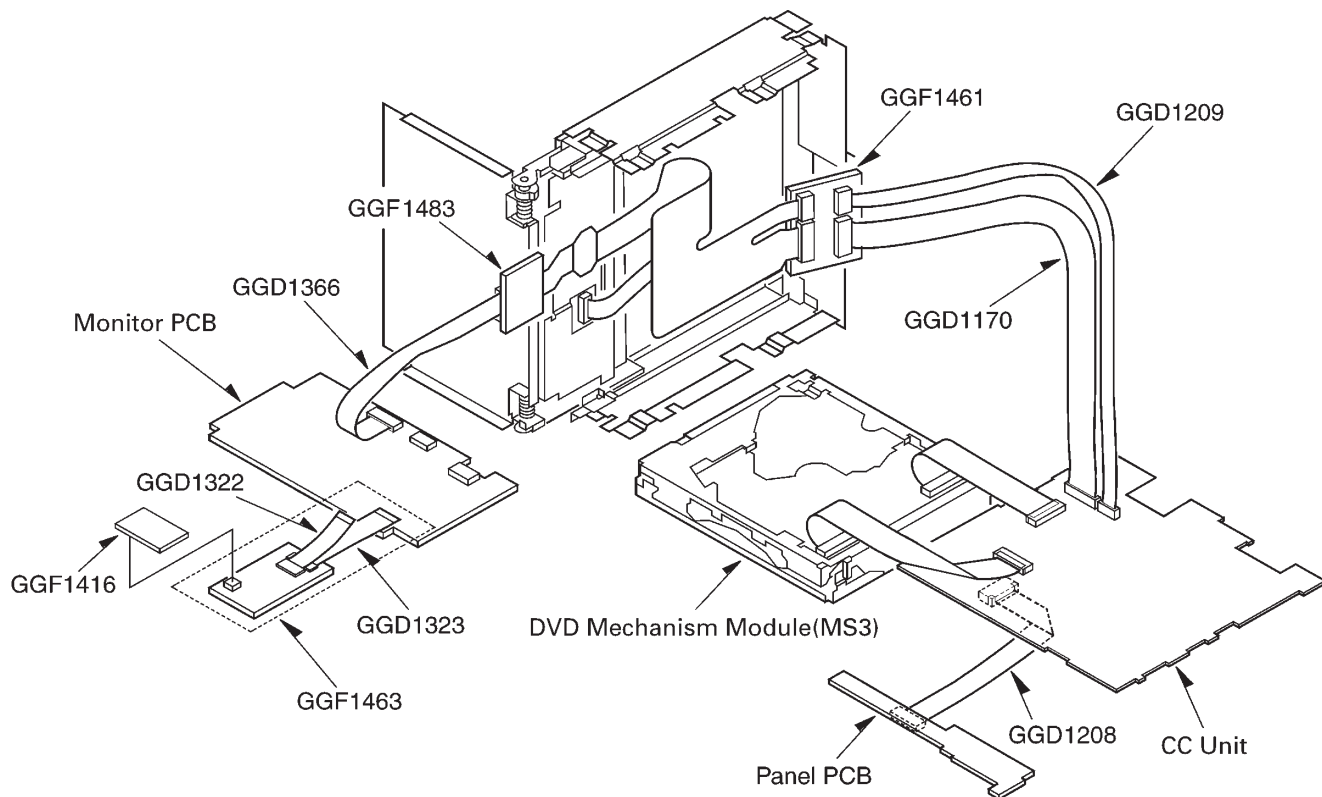
VR3841	Rotary (Angle sense)	CCW1025
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Miscellaneous Parts List

	Pickup Unit(Service)(DP5)	CXX1915
M 1	Motor Unit(LOADING)	CXC4659
M 2	Motor Unit(CARRIAGE)	CXC4314
M 3	Motor(SPINDLE)	CXM1308
M 3001	Motor Unit(Position)	CXB9515
M 3002	Motor Unit(Angle)	CXB9516
M 100	Fan Motor	CXM1284
M 101	Fan Motor	CXM1289
M 102	Fan Motor	CXM1293
	LCD Panel	CWX3056
	LCD	CAW1870

6. ADJUSTMENT

6.1 JIG CONNECTION DIAGRAM



*1) After connecting the Hideaway Unit, please perform adjustment.

● JIG's List

Function	Name	Jig No.
CC Unit (CN609) <--> Main Unit (CN3801)	PCB	GGF1461
CC Unit (CN609) <--> GGF1461	40P FFC	GGD1170
CC Unit (CN609) <--> GGF1461	20P FFC	GGD1209
CC Unit (CN608) <--> Monitor PCB (CN4002)	PCB	GGF1483
CC Unit (CN2701) <--> Panel PCB (CN5901)	18P FFC	GGD1208
Monitor PCB (CN4002) <--> GGF1483	36P FFC	GGD1366
Monitor Adjustment PCB (*2)	PCB	GGF1416
JIG connector Assy (*2)	PCB and FFC	GGF1463
Monitor PCB ("FOR SERVICE" 14P terminal) <--> GGF1463 (*2)	14P FFC	GGD1323
TEST DISC (Operation check)	CD-ROM or DVD-ROM	GGV1137

*2) Since this product does not have OSD IC, OSD for adjustment is displayed by using GGF1416 and GGF1463 at the time of monitor adjustment. As you will find lands for 14 pins with 0.8mm pitch at the left top part of the monitor board, directly solder a flexible PCB of GGD1323 for adjustment. As GGD1322 is not used, be careful not to short the terminal.

6.2 DVD ADJUSTMENT



1) Precautions

This product uses 5V and 3.3V as standard voltages. The electrical potential that is the reference for signals, is not GND, but VREF (approximately 2.2V) and VHALF (approximately 1.65V).

During product adjustments, if the reference voltage is mistakenly taken as GND, and a grounding contact is made, not only would it be impossible to measure the accurate electrical potential, but also the servo motor would malfunction, resulting in the application of a strong impact on the pick up. The following precautionary measures should be strictly adhered to, in order to avoid such problems.

The reference voltage and GND should not be confused when using the minus probe of a measurement device. When an oscilloscope is being used special care should be taken to make sure that the reference voltage is not connected to the probe of ch1 (on the minus side), while the probe of ch2 (on the minus side), is connected to GND. Further, since the body frame of most measurement devices have the same electrical potential as the minus side of the probe, the body frame of the measurement device should be set to floating ground.

If the reference voltage is connected to GND by mistake, turn the regulator OFF immediately, or turn the power OFF.

- Remove the filters and wires used for measurements only after the regulator has been turned OFF.
- After the power supply is turned on, regulator ON the following adjustment and measurement are promptly done.
- Whenever the product is in the test mode, the software will not take any protective action. For this reason, special care should be taken to make sure that no mechanical or electrical shock could be applied to the product when taking measurements in the test mode.
- Whenever the EJECT key is pressed to eject the disk, no other keys, other than the EJECT key, should be pressed until the disk eject action has been completed.
- Press the EJECT key only after the disk has stopped completely.
- If the product hangs up turn the power OFF immediately.
- Laser diodes may be damaged, if the volume switch for the laser power adjustment of the pick up unit, is turned.

Attention)

- Test mode starting procedure
Please select "MS3 check" (page 230) to start test mode.

(Additional Information)

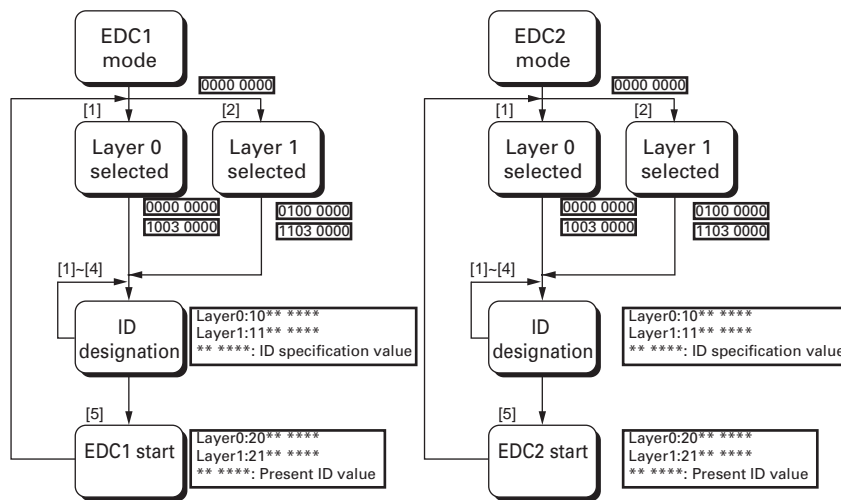
IP-BUS slave unit (i.e. Multi-CD changer) test mode starting procedure.

- To enter the test mode
While pressing the SOURCE and ANGLE- keys at the same time, reset.

• Key Assign table

AVIC-N2/XU/UC or AVIC-X1R/XU//EW	MAIN UNIT KEY (6 keys type)
UP	UP
DOWN	DOWN
LEFT	LEFT
RIGHT	RIGHT
BAND	BAND
REAR	1
WIDE	2
ENT	3
ANGLE-	4
ANGLE+	5
EQ	6

* Refer to service manual for adjustment of the slave unit.



F-close and F-search cannot be executed, unless LD-ON is set.

[If F-close isn't executed within 9 seconds after LD-ON, it switches to LD-OFF automatically.

And even if F-search is executed within 9 seconds after LD-ON, it also switches to LD-OFF.]

Please carry out F-close after carrying out power-off at once and carrying out power-on again, when carrying out F-close after performing F-search.

The track number designation is selected from the track numbers already prepared for selection.

Switching to cyclic operation is made at step REAR, and the decision is finalized (entered) in step BACK/TEXT.

For CD: Tracks 1, 4, 10, 11 and 32.

For DVD: Tracks 1, 4, 10, 11, 32, 64 and 100.

Method for designating an ID address:

- A number of digits are determined through commands RIGHT and LEFT. Numerical UP/DOWN operations are performed through commands REAR and BACK/TEXT. The decision is finalized (entered) with command ATT.

Display

Error Code List

Error status from DVD microcomputer	Contents	Display
0X50	Mecha. error	No display
0X40	No disc	No display
0X30	The temperature is abnormal	Thermal Protection in Motion
0X20	Read error	Error-02-XX
0XE2	Non-playable disc	NON-PLAYABLE DISC
0X90	Different region disc	DIFFERENT REGION DISC
0XFF	Undefined error	Error-FF

Error code of read error(Part of XX)

Error Code	Contents	Display
0X99	Data cannot read	Please confirm the disc
0X80	The address cannot be found	Please confirm the disc
0X90	Focus error	Please confirm the disc
0X91	Spindle lock NG	DVD is stopping because mechanism detected abnormality
0X92	Carriage home NG	DVD is stopping because mechanism detected abnormality
0X93	FOK error	Please confirm the disc
0X94	ID/Subcode cannot be read	Please confirm the disc
0X95	High spindle rotation	DVD is stopping because mechanism detected abnormality
0X96	Row spindle rotation	DVD is stopping because mechanism detected abnormality
0X98	TOC cannot be found	Please confirm the disc
0X9A	AV chip error	DVD is stopping because mechanism detected abnormality
0X9B	RecoveryNG(BE)	DVD is stopping because mechanism detected abnormality
0X9C	Play state error	
0X9D	Disc data error	
0X9E	Surface error (Disc distinction is improper)	

● Skew adjustment

The skew adjustment is to adjust the pickup and the flatness of the disc so that the beam from the pickup continues to go to the disc vertically. In MS3 mecha, the pickup shaft on the inner track near the carriage motor is fixed, so the fixed position is regarded as the standard and the flatness is adjusted. Observing the RF waveform on the oscilloscope, repeat the adjustment on the inner track position and the outer track position, and narrow the adjusted value.

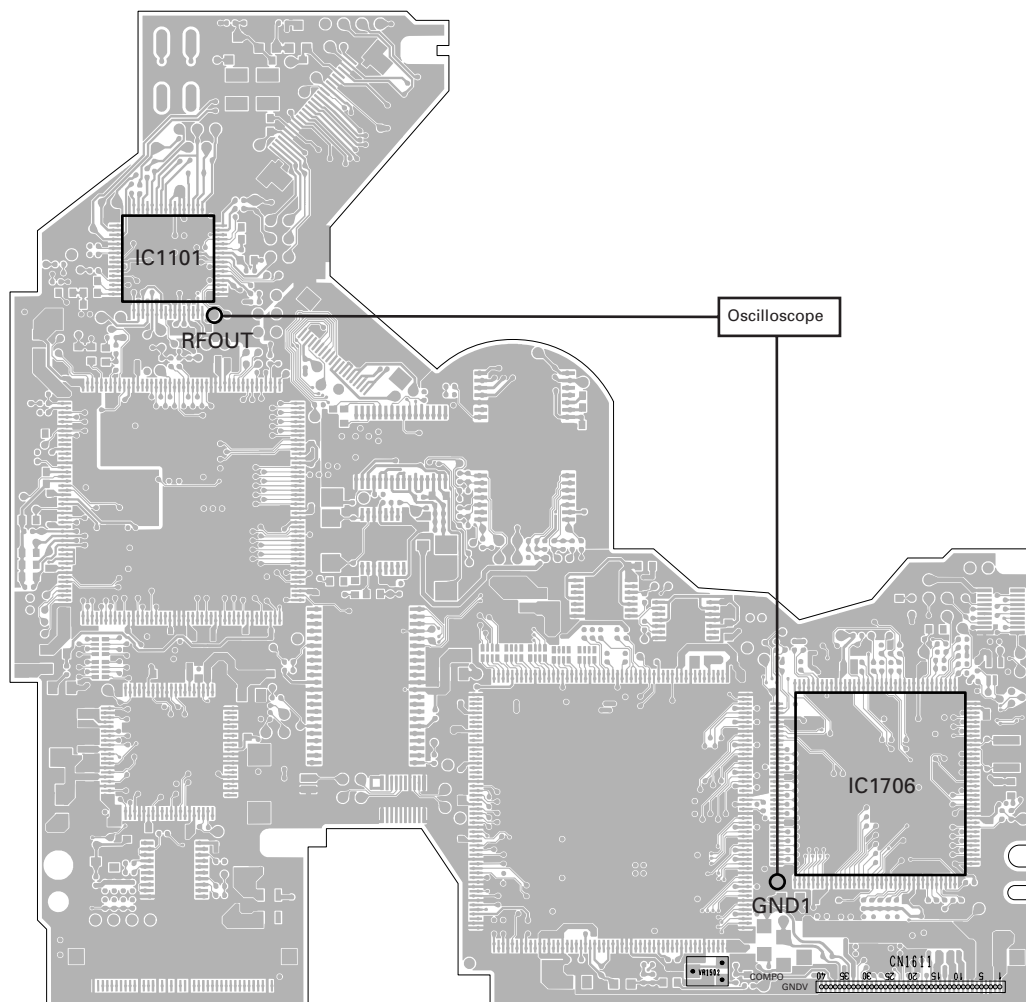
If any of the following replacements have been performed on the system, adjustments for pick up, must be conducted:

1. Pick up unit replacement
2. Spindle motor replacement
3. Carriage chassis replacement
4. Pick up unit main shaft replacement
5. Pick up unit sub-shaft replacement

Measurement device and tools : Oscilloscope
 Allen key wrench
 40-pin flexible extension (GGD1170)
 Screw rock(GYL1001)

Disk used : GGV1018
 Measurement reference : GND1
 Measurement point : RFOUT

Connection diagram
 DVD core unit(MS3)



Symptoms in case of poor adjustment: Error efficiency deteriorated: 10^{-3} (Optimum value: 10^{-4} or lower)

High jitter of the RF signal RF waveform deformed

Unstable operation in tracking closing and servo control

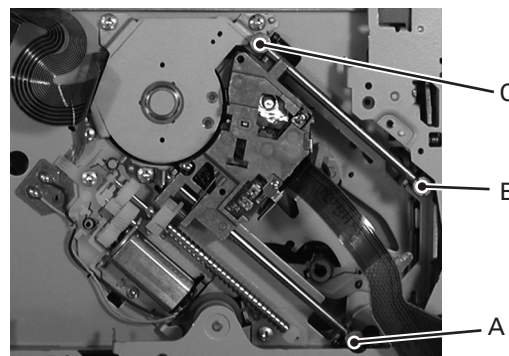
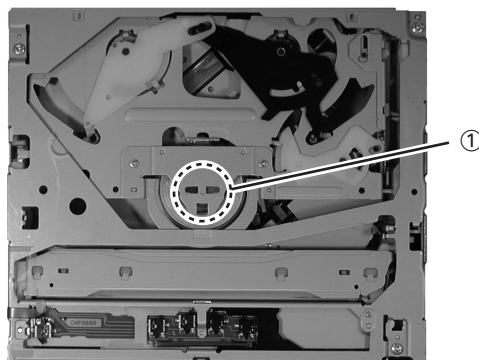
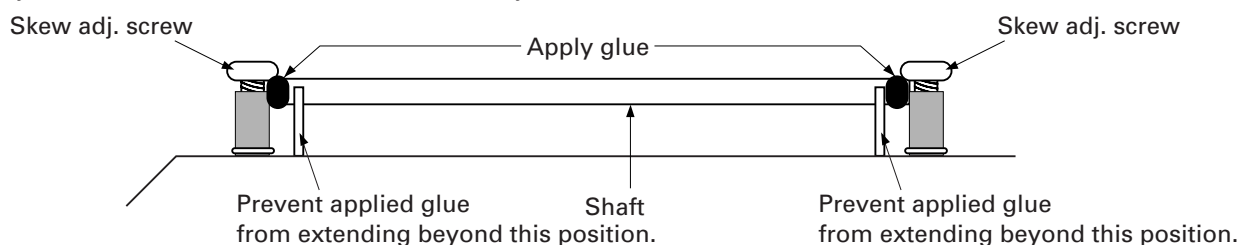
Caution: Avoid exposing your eyes to laser beams for a long time.

Preparation for adjustment: Clean both ends of the shafts.

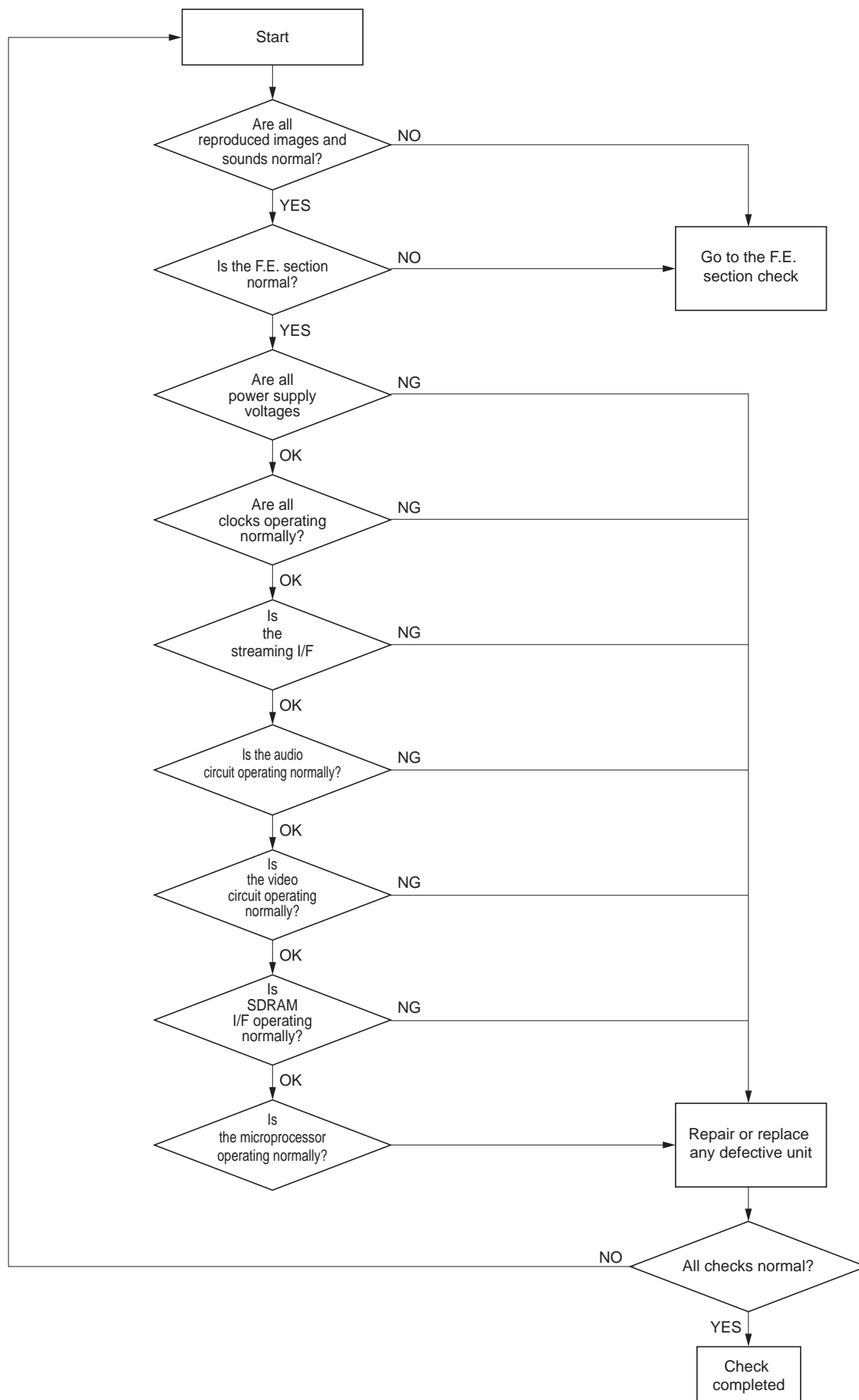
Use brand new skew screws supplied with the service kit GXX1234.

Procedures:

1. Place the DVD mechanism module upside down.
To avoid the disc from being robbed when it is turned upside down, first put a coin of about 1.5 mm on the table, then turn the disc upside down and set it so that the ① in the figure comes to the point immediately above the coin.
2. After replacing the pickup (by referring to the procedures of "Removing the Pickup."), roughly adjust the three skew screws through visual check so that the pickup is mounted in parallel to the CRG chassis around the inner and outer tracks.
3. Connect an oscilloscope as shown in the connecting diagram.
4. Turn on the power of the product. Load the test disc (GGV1018).
5. In the front-end test mode, set the disc type to DVD layer 1. Then, turn on the power. Move the pickup toward the inner tracks.
6. Turn on the laser diodes.
7. With the focus servo closed, complete all automatic adjustments. Close the tracking servo, and then complete all automatic adjustments.
- 8 Follow the next procedures, from 8-1 to 8-5, and adjust the (three) skew screws.
- 8-1 Move the pickup toward the inner track and turn the skew adjustment screw C so that the RF level of oscilloscope becomes the maximum.
(Tangential adjustment at the inner track position: Adjust the flatness of the disc at the inner track position with the adjustment screw C)
- 8-2 Move the pickup toward the outer track and turn the skew adjustment screw B so that the RF level becomes the maximum.
(Tangential adjustment at the outer track position: Adjust the flatness of the disc at the outer track position with the adjustment screw B)
- 8-3 Leave the pickup at the outer track position and turn the skew adjustment screws A and B in the same direction alternately one quarter at a time (A•B•A•B ...) so that the RF level becomes the maximum.
(Radial adjustment at the outer track position: Keeping the flatness at the outer track position, adjust the flatness of the whole disk with the adjustment screws A and B)
- 8-4 Move the pickup toward the inner track and turn the skew adjustment screw C so that the RF level becomes the maximum.
(Tangential adjustment at the inner track position: Adjust the flatness of the disc at the inner track position with the adjustment screw C)
- 8-5 Repeat the steps from 8-2 to 8-4 three times, and adjust at the position where the RF level becomes the maximum.
9. Turn off the power in the test mode. After confirming that the disc has stopped, eject the disc.
10. Adjust with a screw rock the shaft and skew adjustment screw to the same state as initial one.



● Back end section check flow chart



Check 1: Are all power supply voltages normal?

Reproduce DVD-REF-A1 Title 1.

Verify the voltage of the sensing pin.

If results are not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components.

NO.	Verification location	Rated value	Unit
1	VD8-PGND	8 ± 0.4	V
2	VD33-GND	3.3 ± 0.3	V
3	SRVDD33-GND	3.3 ± 0.3	V
4	VCC5-GND	5 ± 0.25	V
5	AVCC5-GND	5 ± 0.3	V
6	VCC33-GND	3.3 ± 0.15	V
7	VCC18-GND	1.8 ± 0.15	V
8	VCC25-GND	2.5 ± 0.2	V

A

Check 2: Are all clocks operating normally?

Reproduce DVD-REF-A1 Title 1.

Checks are to be conducted with a GND reference.

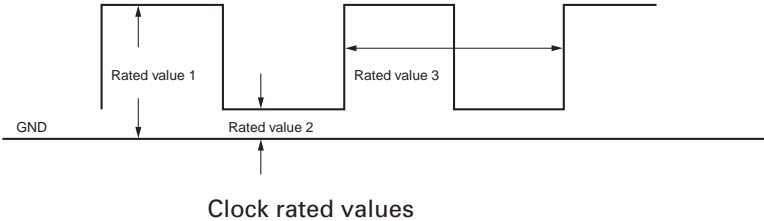
If locations listed under "verification location 2", can be verified, there will be no need to perform verifications for the locations listed under "verification location 1."

If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in the vicinity of IC1507.

B

NO.	Verification location 1 (contact measurements)	Verification location 2	Media	Rated value1	Rated value 2	Rated value 3
1	CLK27	IC1503 96pin	ALL	2.65V~VCC33	GND~0.65V	27MHz±50ppm
2	EXTCK1	IC1503 100pin	DVD	2.65V~VCC33	GND~0.65V	36.8640MHz±100ppm
3	EXTCK1	IC1503 100pin	CD	2.65V~VCC33	GND~0.65V	33.8688MHz±100ppm
4	MCK16	IC1301 79pin	ALL	2.33~VCC33	GND~0.99V	16.9344MHz±100ppm
5	MCK33	IC1601 3,33pin	ALL	2.33~VCC33	GND~0.10V	33.8688MHz~40.0000MHz

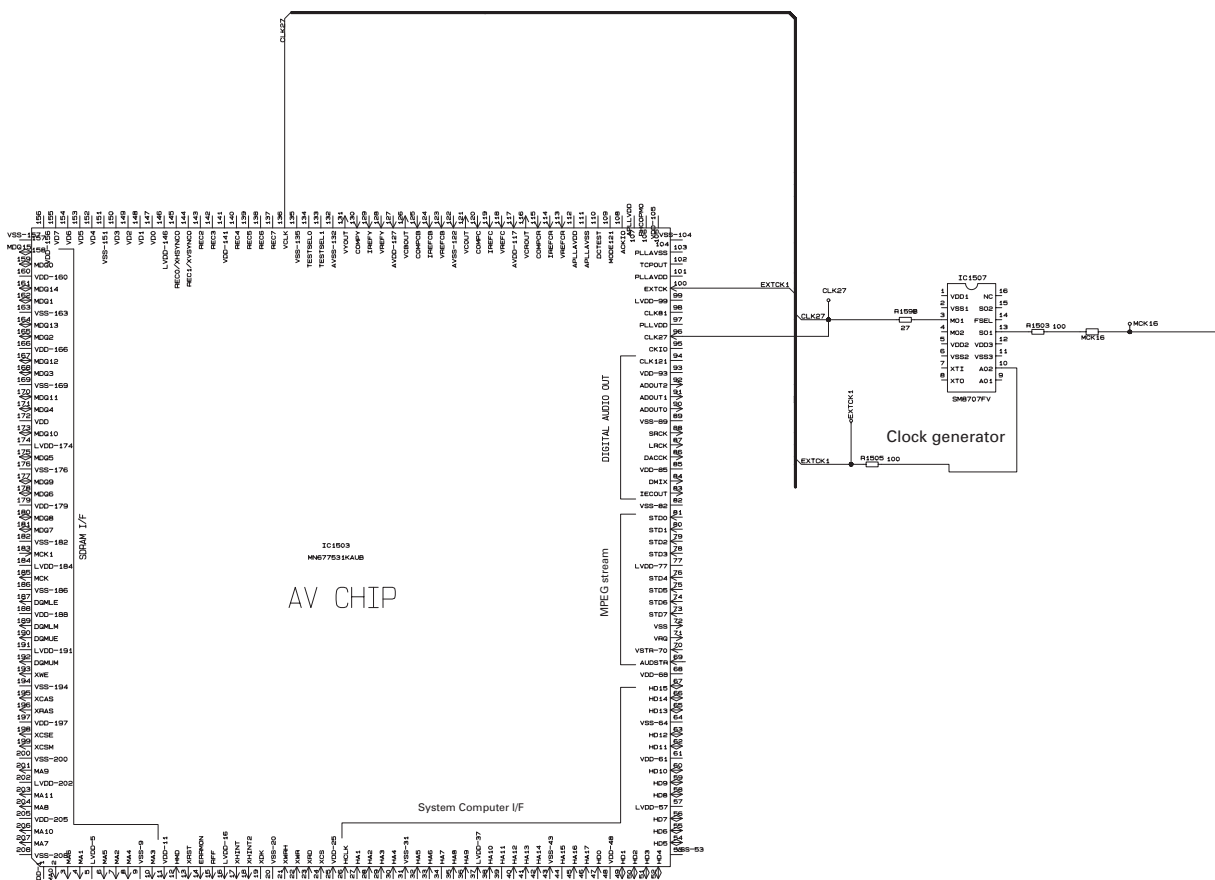
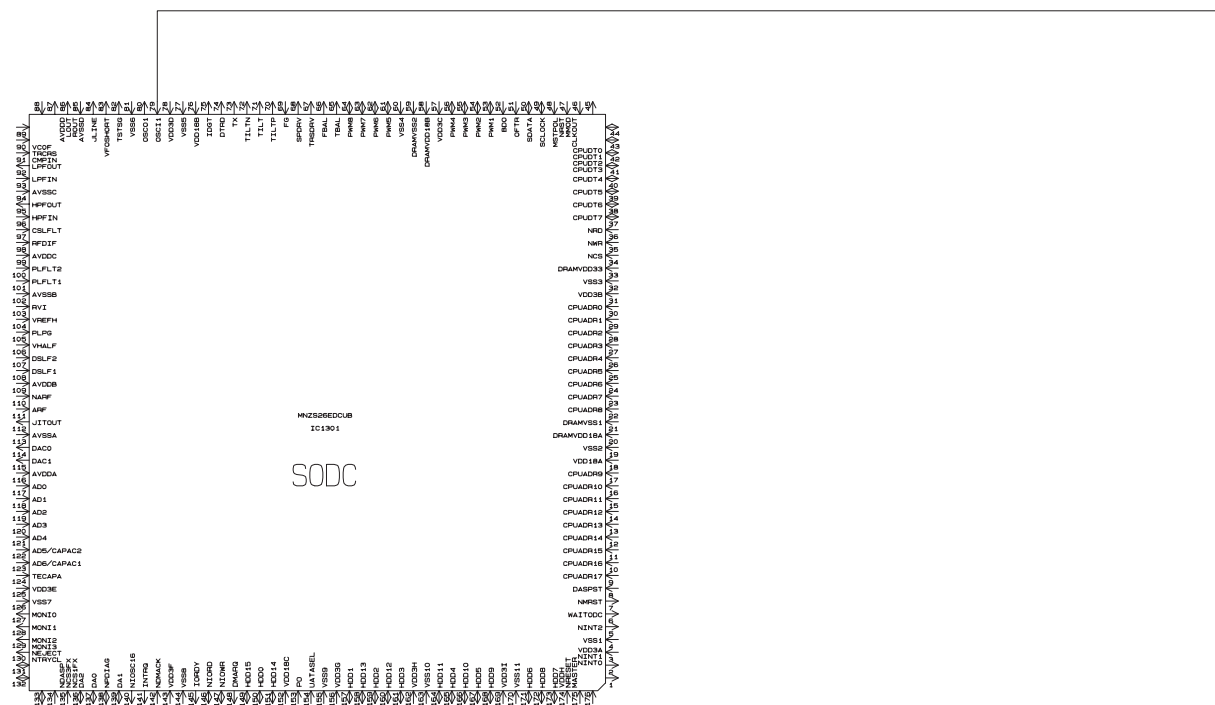
C



D

E

F



A

Check 3: Is the streaming I/F operating normally?

Reproduce DVD-REF-A1 Title 1.

Checks are to be conducted with a GND reference.

If the locations listed under "verification location 2" can be verified, then there is no need to conduct verifications for the locations listed under "verification location 1."

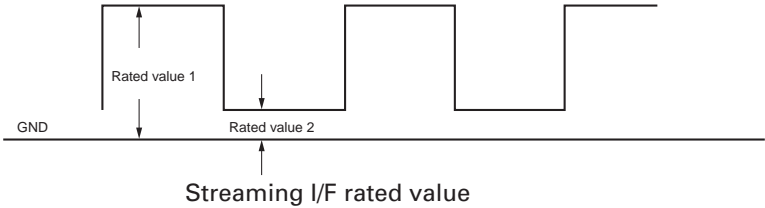
If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in areas where a problem occurs, for the overall sequence of "output "input" of the checked location.

B

NO.	Verification location 1 (contact measurements)	Verification location2	Verification Media	Rated value 1	Rated value 2	Reference waveform	Others
1	STD0	IC1503 81pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD8 at R1425
2	STD1	IC1503 80pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD9 at R1425
3	STD2	IC1503 79pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD10 at R1425
4	STD3	IC1503 78pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD11 at R1425
5	STD4	IC1503 76pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD12 at R1426
6	STD5	IC1503 75pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD13 at R1426
7	STD6	IC1503 74pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD14 at R1426
8	STD7	IC1503 73pin	DVD	2V~VCC33	GND~0.8V	Waveform 1	Line name OHDD15 at R1426
9	STCLK	IC1503 70pin	DVD	2V~VCC33	GND~0.8V	Waveform 2	Line name ODA2 at IC1405
10	STVALID	IC1503 69pin	DVD	2V~VCC33	GND~0.8V	Waveform 2	Line name OINTRQ at IC1405
11	MASTER	IC1301 176pin	DVD	2V~VCC33	GND~0.8V	Waveform 2	Line name STENABLE at IC1405

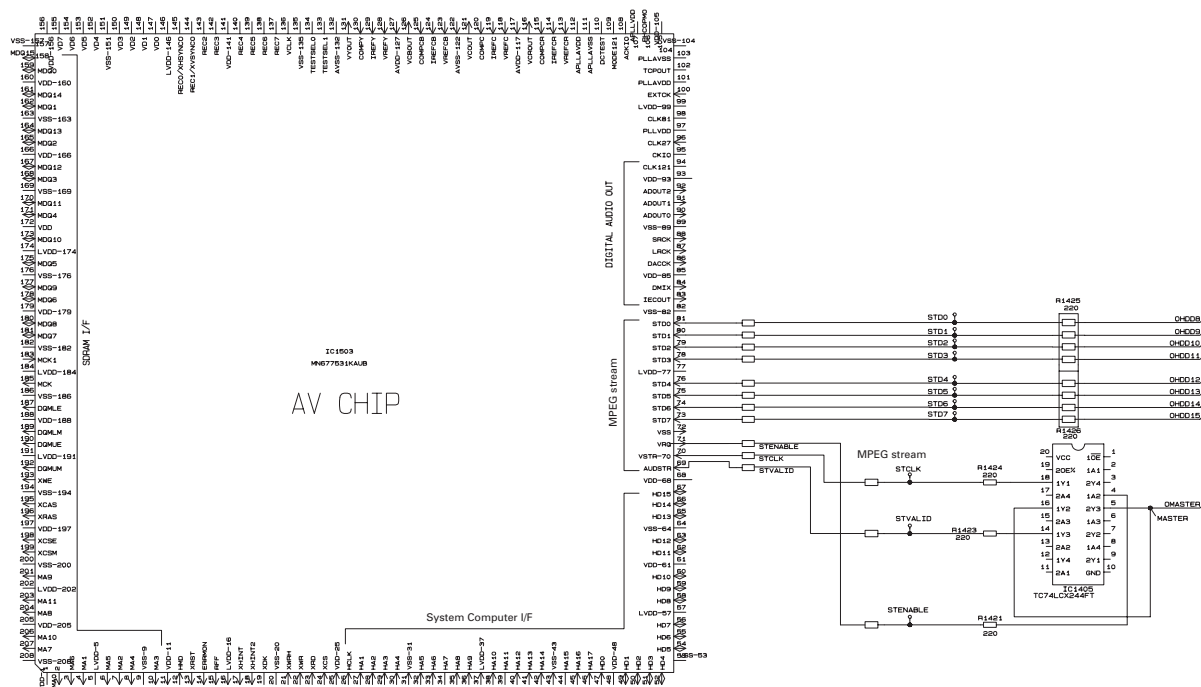
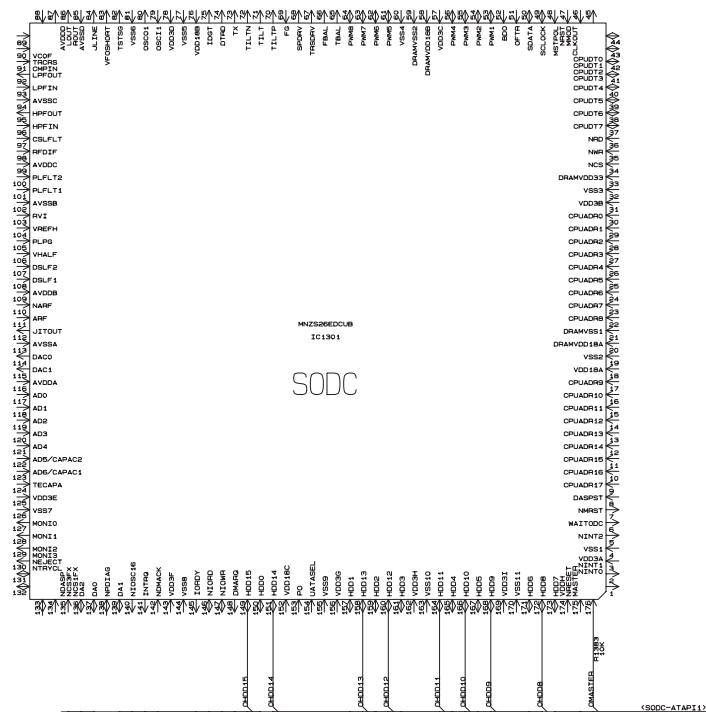
C

D



E

F



Check 4: Is the audio circuit operating normally?

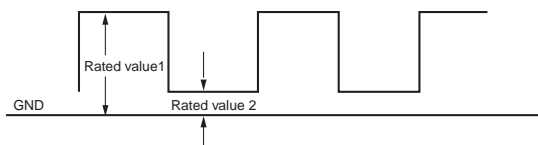
Reproduce DVD-REF-A1 Title 2 Chapter (48V/16-bit/1 kHz/0dB). Verify the circuit described in Figure 2.

Checks are to be conducted using GND_{DAU1} (sensing pins) as a reference.

If the locations, listed under "verification location 2", can be verified, there is no need to conduct verifications for the locations listed under "verification location 1."

If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in the vicinity of the main components.

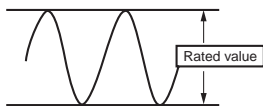
NO.	Verification location 1	Verification location 2	Rated value 1	Rated value 2	Reference waveform
1	AOUT0	IC1503 90pin	2.0V and over	0.8V and lower	Waveform 3
2	SRCK	IC1605 1pin	2.0V and over	0.8V and lower	Waveform 3
3	LRCK	IC1605 3pin	2.0V and over	0.8V and lower	Waveform 3



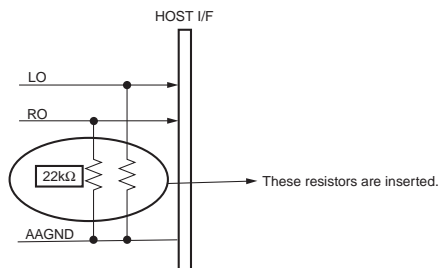
Three serial output rated values

Checks are conducted with the measurement circuit below.

NO.	Verification location 1	Verification location 2	Rated value	Reference waveform
4	LO	CN1611 36pin	1100±150mV	Waveform 4
5	RO	CN1611 34pin	1100±150mV	Waveform 4



Analog audio outputs (LO and RO) rated values



LO and RO output measurement circuit

Check 5: Is the video circuit operated normally?

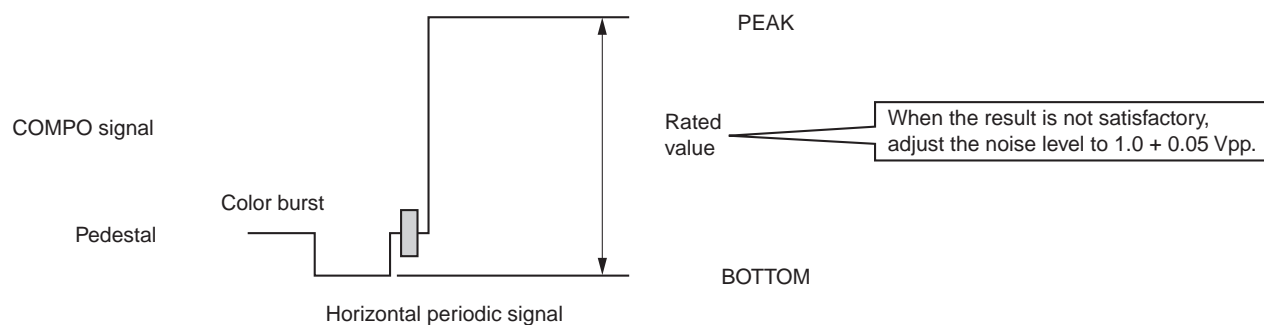
Reproduce DVD-REF-A1 Title 2 Chapters (White 100IRE).

Monitor the output with the oscilloscope, by setting the COMPO signal to a GND reference.

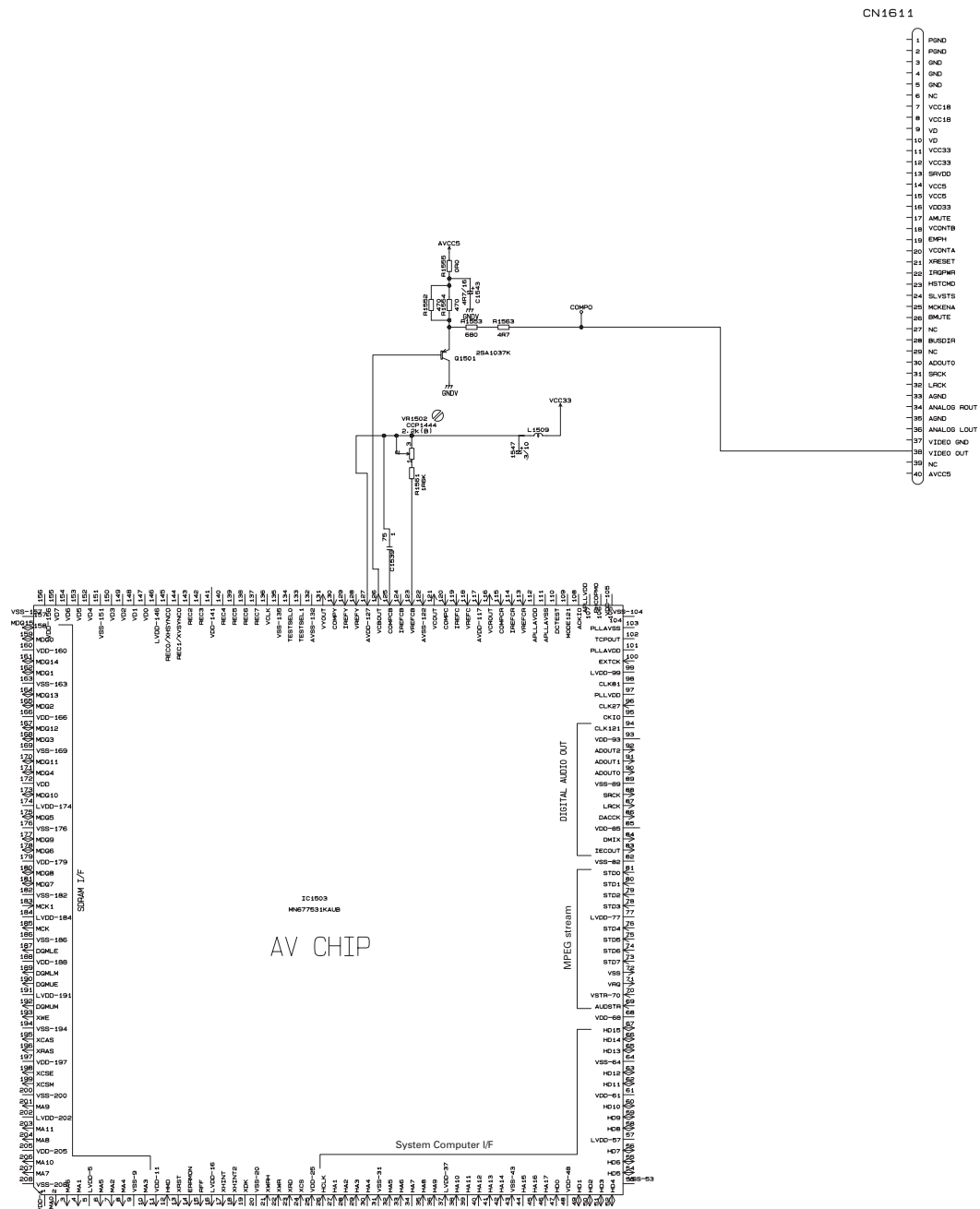
Set the Trigger mode to the TV trigger, and the Trigger line to line-150.

NO.	Verification location (sensing pin)	Rated value	Reference waveform
1	COMPO	$1.0 \pm 0.05V_{pp}$	Waveform 5

If the result is not satisfactory, check to see if there are any problems with resin flux cored solder, parts and components, in the vicinity of line-150 (the section marked ⑤ in the circuit diagram) and peripheral components.



Composite signal 100% output waveform



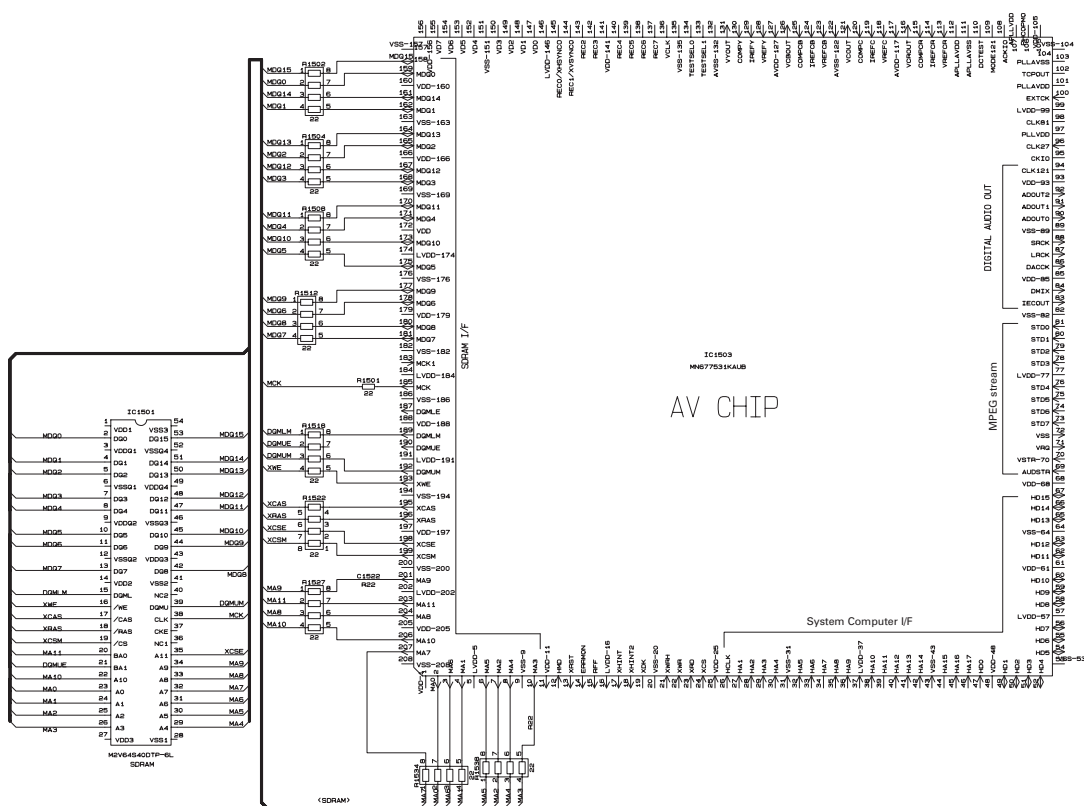
Check 6: Is SDRAM I/F operating normally?

Reproduce DVD-REF-A1 Title 1.

Check the conductivity of both the "Verification location 1" and the "Verification location2."

If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in areas where a problem occurs, for the overall sequence of "output "input" of the checked location.

NO.	Signal name	Verification location 1	Verification location 2	Rated value
1	MA0	IC1501 23pin	IC1503 2pin	$22\Omega \pm 5\%$
2	MA1	IC1501 24pin	IC1503 4pin	$22\Omega \pm 5\%$
3	MA2	IC1501 25pin	IC1503 7pin	$22\Omega \pm 5\%$
4	MA3	IC1501 26pin	IC1503 10pin	$22\Omega \pm 5\%$
5	MA4	IC1501 29pin	IC1503 8pin	$22\Omega \pm 5\%$
6	MA5	IC1501 30pin	IC1503 6pin	$22\Omega \pm 5\%$
7	MA6	IC1501 31pin	IC1503 3pin	$22\Omega \pm 5\%$
8	MA7	IC1501 32pin	IC1503 207pin	$22\Omega \pm 5\%$
9	MA8	IC1501 33pin	IC1503 204pin	$22\Omega \pm 5\%$
10	MA9	IC1501 34pin	IC1503 201pin	$22\Omega \pm 5\%$
11	MA10	IC1501 22pin	IC1503 206pin	$22\Omega \pm 5\%$
12	MA11	IC1501 20pin	IC1503 203pin	$22\Omega \pm 5\%$
13	MDQ0	IC1501 2pin	IC1503 159pin	$22\Omega \pm 5\%$
14	MDQ1	IC1501 4pin	IC1503 162pin	$22\Omega \pm 5\%$
15	MDQ2	IC1501 5pin	IC1503 165pin	$22\Omega \pm 5\%$
16	MDQ3	IC1501 7pin	IC1503 168pin	$22\Omega \pm 5\%$
17	MDQ4	IC1501 8pin	IC1503 171pin	$22\Omega \pm 5\%$
18	MDQ5	IC1501 10pin	IC1503 175pin	$22\Omega \pm 5\%$
19	MDQ6	IC1501 11pin	IC1503 178pin	$22\Omega \pm 5\%$
20	MDQ7	IC1501 13pin	IC1503 181pin	$22\Omega \pm 5\%$
21	MDQ8	IC1501 42pin	IC1503 180pin	$22\Omega \pm 5\%$
22	MDQ9	IC1501 44pin	IC1503 177pin	$22\Omega \pm 5\%$
23	MDQ10	IC1501 45pin	IC1503 173pin	$22\Omega \pm 5\%$
24	MDQ11	IC1501 47pin	IC1503 170pin	$22\Omega \pm 5\%$
25	MDQ12	IC1501 48pin	IC1503 167pin	$22\Omega \pm 5\%$
26	MDQ13	IC1501 50pin	IC1503 164pin	$22\Omega \pm 5\%$
27	MDQ14	IC1501 51pin	IC1503 161pin	$22\Omega \pm 5\%$
28	MDQ15	IC1501 53pin	IC1503 158pin	$22\Omega \pm 5\%$
29	MCK	IC1501 38pin	IC1503 185pin	$22\Omega \pm 5\%$
30	XWE	IC1501 16pin	IC1503 193pin	$22\Omega \pm 5\%$
31	XCAS	IC1501 17pin	IC1503 195pin	$22\Omega \pm 5\%$
32	XRAS	IC1501 18pin	IC1503 196pin	$22\Omega \pm 5\%$
33	XCSM	IC1501 19pin	IC1503 199pin	$22\Omega \pm 5\%$
34	XCSE	IC1501 35pin	IC1503 198pin	$22\Omega \pm 5\%$
35	DQMUM	IC1501 39pin	IC1503 192pin	$22\Omega \pm 5\%$
36	DQMLM	IC1501 15pin	IC1503 189pin	$22\Omega \pm 5\%$
37	DQMUE	IC1501 21pin	IC1503 190pin	$22\Omega \pm 5\%$

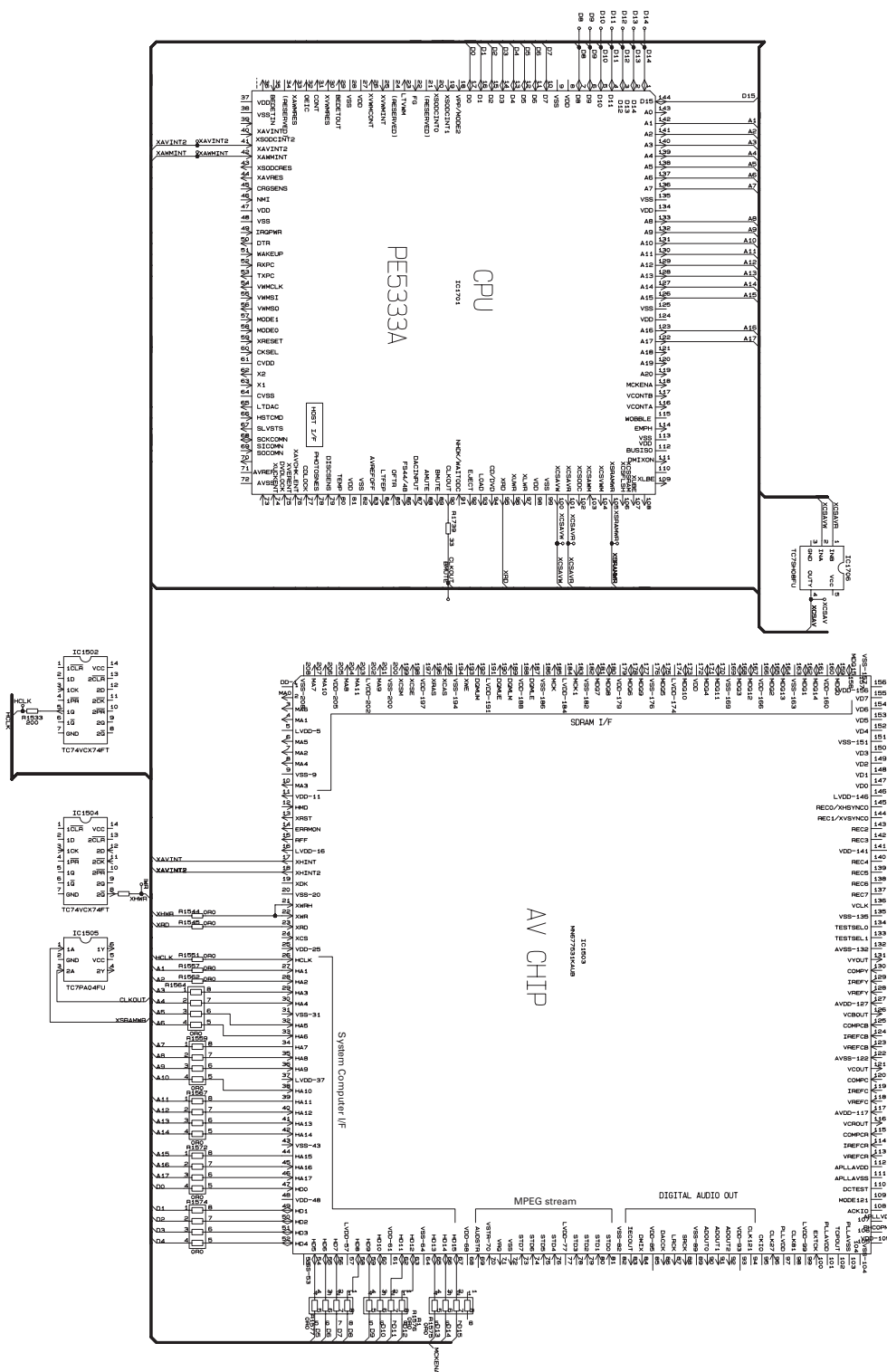


Check 7: Is the microprocessor operating normally?

Check the conductivity of both the "Verification location 1" and the "Verification location2."

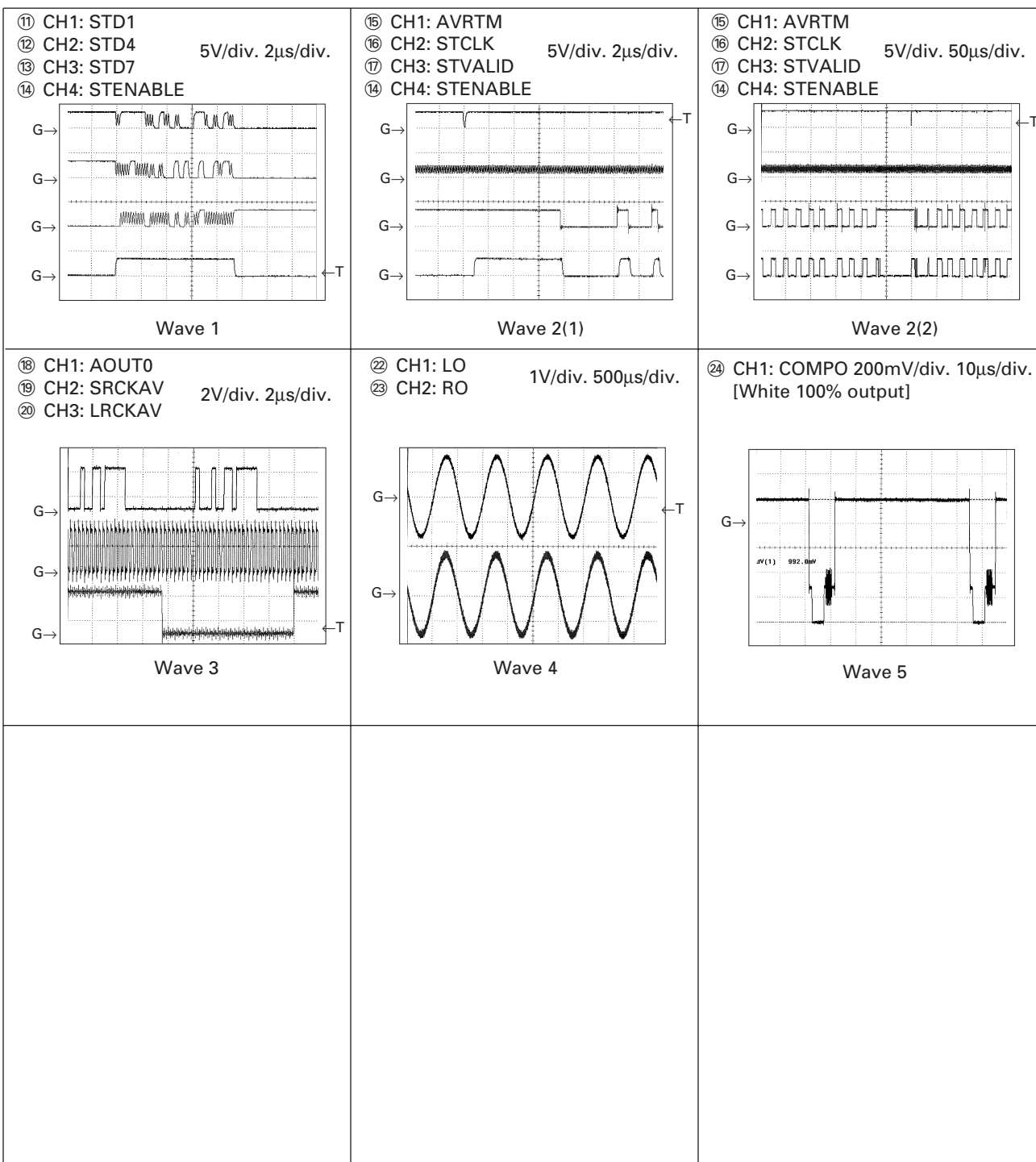
If the result is not satisfactory, check to see if there are any problems with the resin flux cored solder, parts and components, in areas where a problem occurs, for the overall sequence of "output – input" of the checked location.

NO.	Signal name	Verification location 1	Verification location 2	Verification Media	Rated value	Others
1	A1	IC1701 142pin	IC1503 27pin	ALL	0Ω	
2	A2	IC1701 141pin	IC1503 28pin	ALL	0Ω	
3	A3	IC1701 140pin	IC1503 29pin	ALL	0Ω	
4	A4	IC1701 139pin	IC1503 30pin	ALL	0Ω	
5	A5	IC1701 138pin	IC1503 32pin	ALL	0Ω	
6	A6	IC1701 137pin	IC1503 33pin	ALL	0Ω	
7	A7	IC1701 136pin	IC1503 34pin	ALL	0Ω	
8	A8	IC1701 133pin	IC1503 35pin	ALL	0Ω	
9	A9	IC1701 132pin	IC1503 36pin	ALL	0Ω	
10	A10	IC1701 131pin	IC1503 38pin	ALL	0Ω	
11	A11	IC1701 130pin	IC1503 39pin	ALL	0Ω	
12	A12	IC1701 129pin	IC1503 40pin	ALL	0Ω	
13	A13	IC1701 128pin	IC1503 41pin	ALL	0Ω	
14	A14	IC1701 127pin	IC1503 42pin	ALL	0Ω	
15	A15	IC1701 126pin	IC1503 44pin	ALL	0Ω	
16	A16	IC1701 123pin	IC1503 45pin	ALL	0Ω	
17	A17	IC1701 122pin	IC1503 46pin	ALL	0Ω	
18	D0	IC1701 17pin	IC1503 47pin	ALL	0Ω	
19	D1	IC1701 16pin	IC1503 49pin	ALL	0Ω	
20	D2	IC1701 15pin	IC1503 50pin	ALL	0Ω	
21	D3	IC1701 14pin	IC1503 51pin	ALL	0Ω	
22	D4	IC1701 13pin	IC1503 52pin	ALL	0Ω	
23	D5	IC1701 12pin	IC1503 54pin	ALL	0Ω	
24	D6	IC1701 11pin	IC1503 55pin	ALL	0Ω	
25	D7	IC1701 10pin	IC1503 56pin	ALL	0Ω	
26	D8	IC1701 7pin	IC1503 58pin	ALL	0Ω	
27	D9	IC1701 6pin	IC1503 59pin	ALL	0Ω	
28	D10	IC1701 5pin	IC1503 60pin	ALL	0Ω	
29	D11	IC1701 4pin	IC1503 62pin	ALL	0Ω	
30	D12	IC1701 3pin	IC1503 63pin	ALL	0Ω	
31	D13	IC1701 2pin	IC1503 65pin	ALL	0Ω	
32	D14	IC1701 1pin	IC1503 66pin	ALL	0Ω	
33	D15	IC1701 144pin	IC1503 67pin	ALL	0Ω	
34	XCSAVR	IC1701 101pin	IC1706 1pin	ALL	0Ω	
35	XCSAVW	IC1701 100pin	IC1706 2pin	ALL	0Ω	
36	XCSAV	IC1706 4pin	IC1503 24pin	ALL	0Ω	
37	XAVINT	IC1701 42pin	IC1503 17pin	ALL	0Ω	
38	XAVINT2	IC1701 41pin	IC1503 18pin	ALL	0Ω	
39	XRD	IC1701 95pin	IC1503 23pin	ALL	0Ω	
40	CLKOUT	IC1701 90pin	IC1505 3pin	ALL	33Ω	Dividing circuitFor verification location 2, include also IC1502 pin-3
41	HCLK	IC1502 5pin	IC1503 26pin	ALL	200Ω ± 5 %	
42	XSRAMWR	IC1701 105pin	IC1505 1pin	ALL	0Ω	
43	XHWR	IC1504 8pin	IC1503 21pin	ALL	68Ω ± 5 %	



Note: 1 The encircled number denote measuring point in the circuit diagram.

2 Reference voltage VHALF : 1.65V

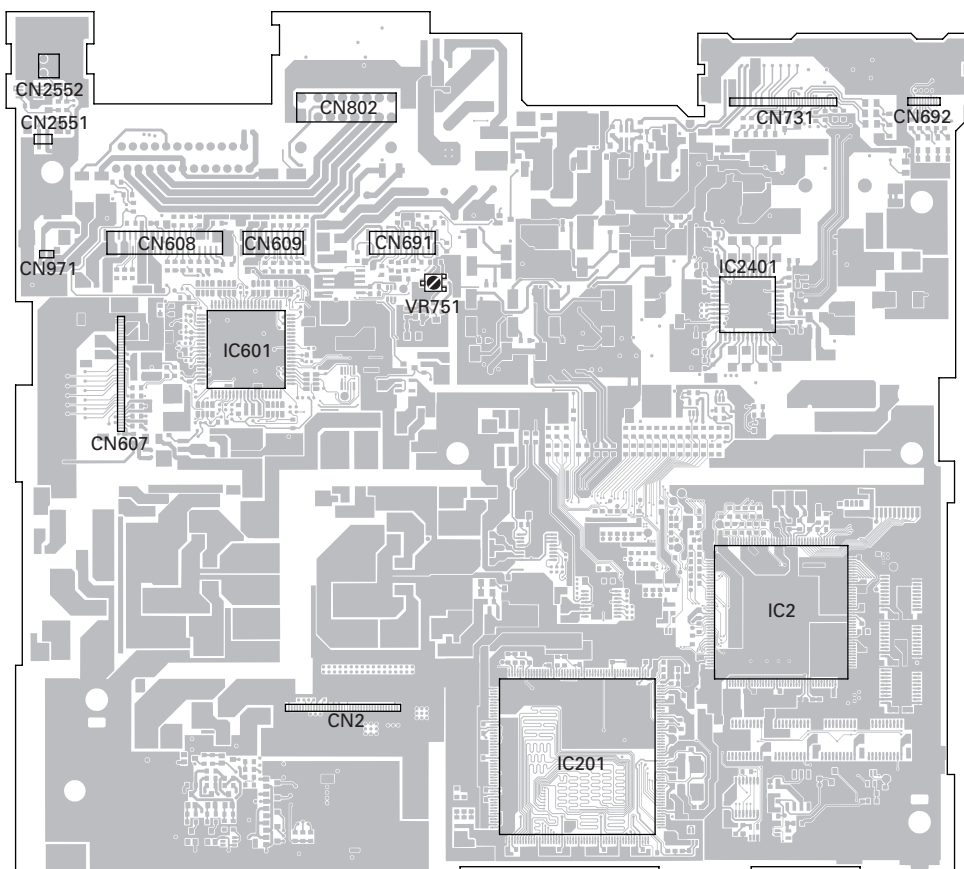


6.3 CC UNIT ADJUSTMENT

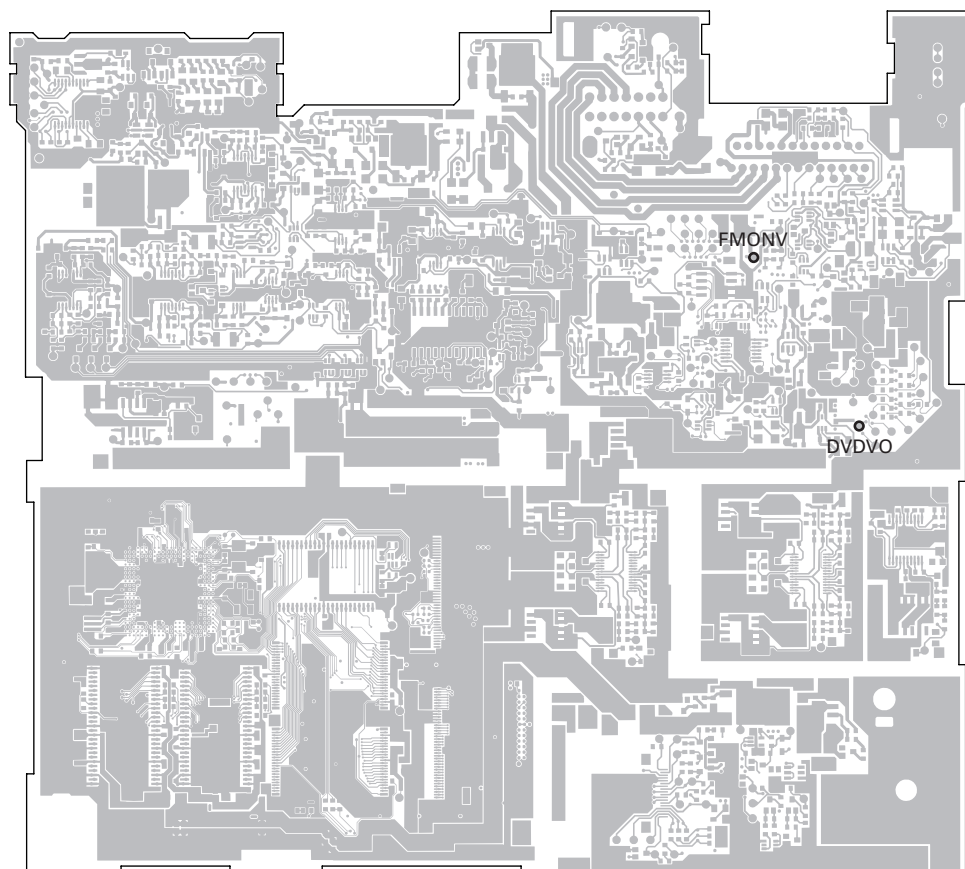


● Adjustment point

CC UNIT(SIDE A)



CC UNIT(SIDE B)



A


B

C

D

E

F

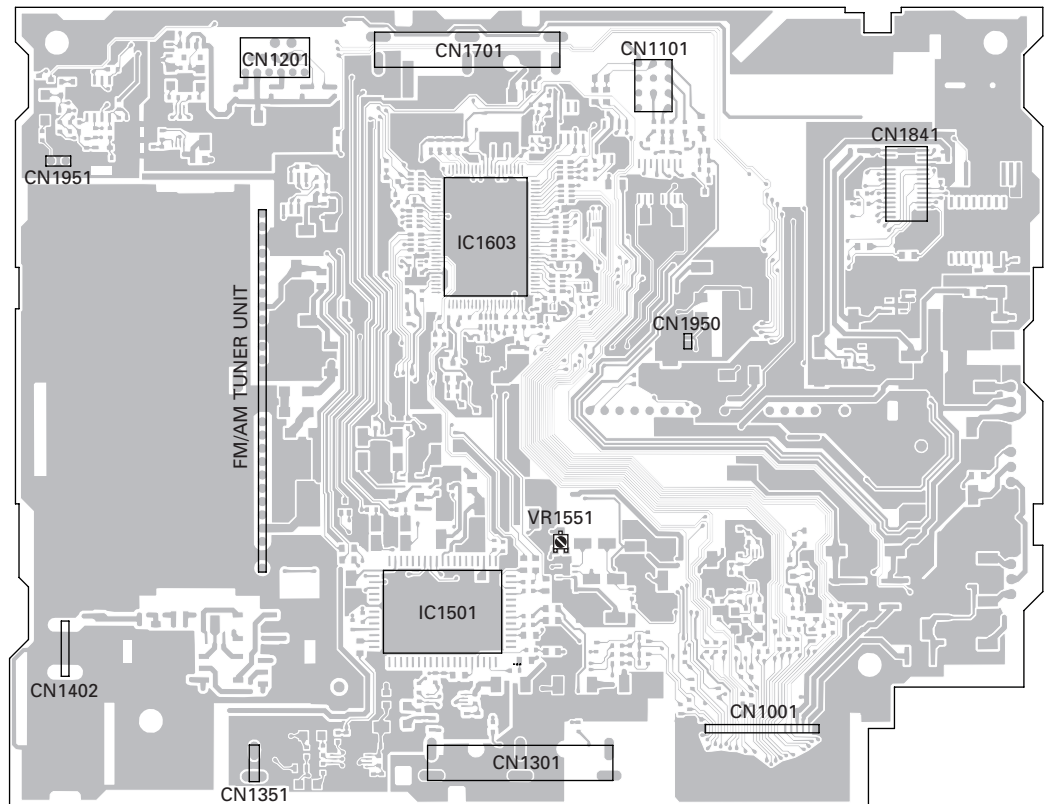
Step	Adjustment item	Mode	Input (input test pin,specs, other conditions)	Output (measuring point, waveform)	Measuring instruments	Specs	Adjusting point
1	Main video level	VTR	Input test pin : DVDVO Signal : 100IRE(white 100%) Level : 1.0Vp-p(via 75Ω)	Measuring point : FMONV 	Oscilloscope	1.50 ± 0.05Vp-p Measure between the sync tip and 100IRE (top level). The 12kΩ terminal on the measuring instrument.	VR751

6.4 MOTHER PCB ADJUSTMENT

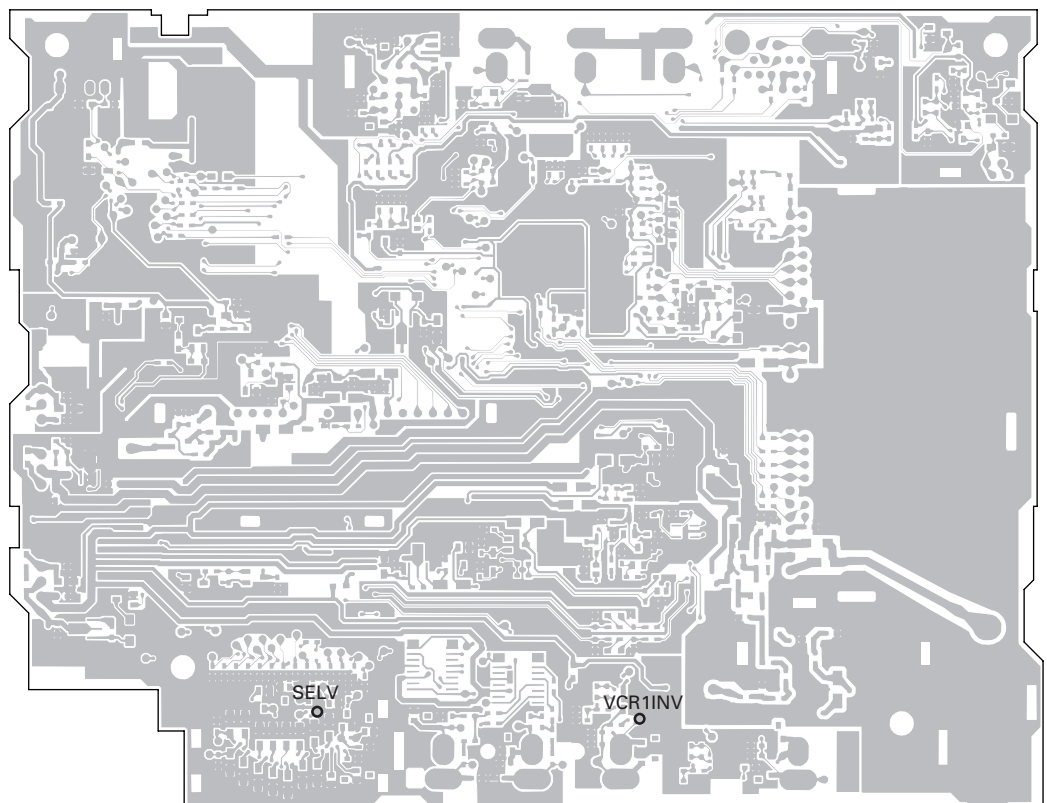


● Adjustment point


MOTHER PCB(SIDE A)



MOTHER PCB(SIDE B)



A B C D E F

Step	Adjustment item	Mode	Input (input test pin,specs, other conditions)	Output (measuring point, waveform)	Measuring instruments	Specs	Adjusting point
1	Composite video level	VTR	Input test pin : VCR1INV Signal : 100IRE(white 100%) Level : 1.0Vp-p(via 75Ω)	Measuring point : SELV 	Oscilloscope	1.00 ± 0.05Vp-p Measure between the sync tip and 100IRE (top level). Measuring conditions: Select the 75Ω terminal on the measuring instrument.	VR1551

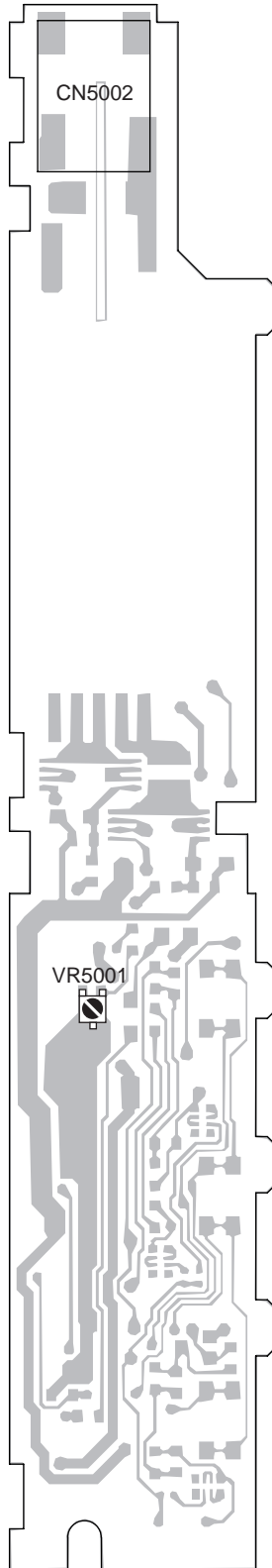
(1) The Video level (Vlevel) is out of spec.
When the Vlevel is more than 1.05Vp-p, the images become whitish.
When the Vlevel is less than 0.95Vp-p, the images become blackish.

6.5 INVERTER PCB ADJUSTMENT

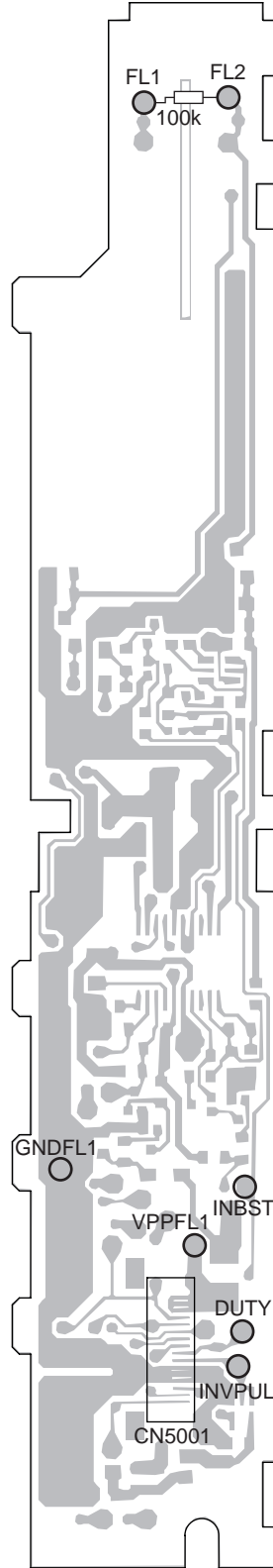


● Adjustment point

INVERTER PCB(SIDE A)



INVERTER PCB(SIDE B)



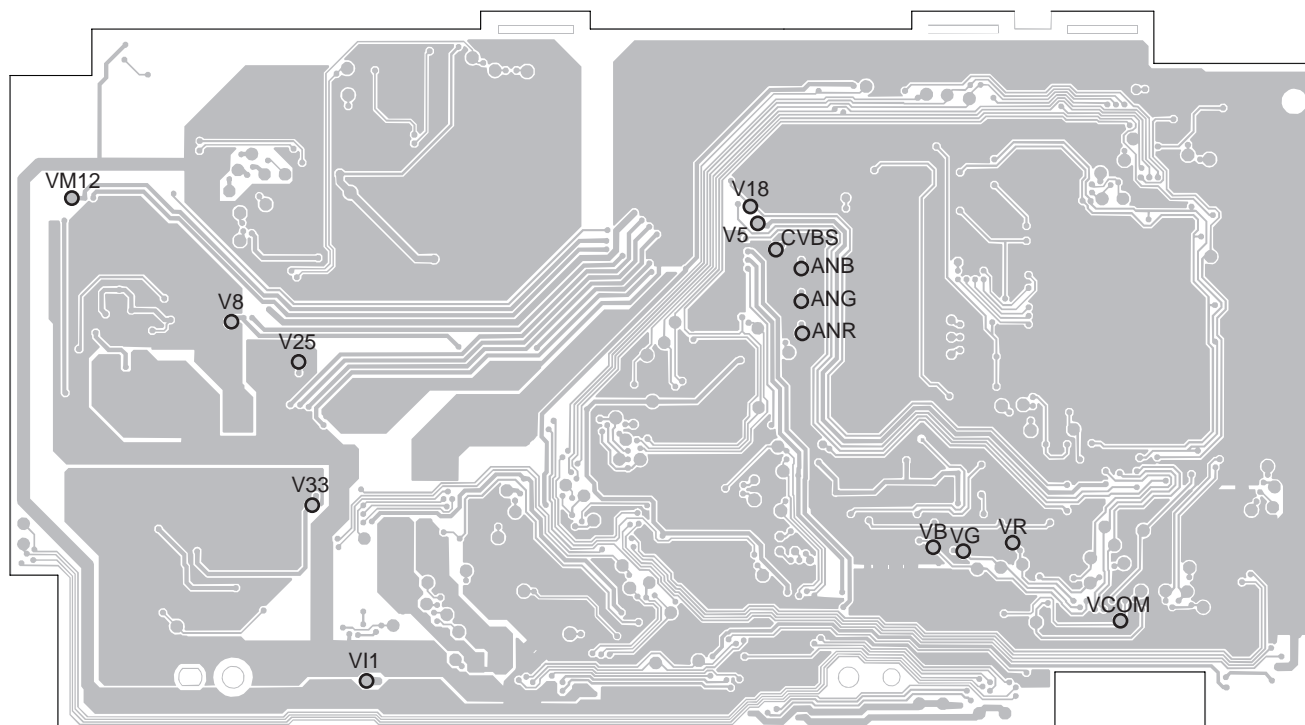
No	Adjustment item	Input signal	Measuring point	Adjusting point	Measuring method and specs.	Remarks
1	BACK LIGHT DRIVE FREQUENCY	Apply 14.4V \pm 0.2V to TP VPPFL1 TP GNDFL1, TP INVPUL, TP DUTY and TP INBST : GND	TP:FL1,FL2	VR 5001	48.0 \pm 0.1kHz	100k ohms is connected between TP FL1 and TP FL2. It acts as the monitor of the waveform after potential. Don't acts as the monitor of the TP FL2 directly. (there is a possibility that a measuring instrument may be destroyed, for high voltage.) Out of spec., when frequency change of following may become impossible.
2	FREQUENCY CHANGE CHECK	Apply wave of 98.0 \pm 1kHz to TP INVPUL 5V 10 \pm 2% 0V	TP:FL1,FL2		49.0 \pm 0.5kHz	It checks that the waveform after potential is set to 49 kHz
3	FREQUENCY CHANGE CHECK	Apply wave of 104.0 \pm 1kHz to TP INVPUL 5V 10 \pm 2% 0V	TP:FL1,FL2		52.0 \pm 0.5kHz	It checks that the waveform after potential is set to 52 kHz

6.6 MONITOR PCB ADJUSTMENT



● Adjustment point

MONITOR PCB(SIDE B)



Notes:

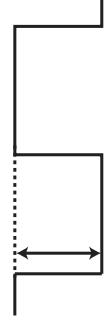
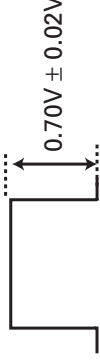

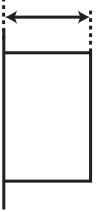

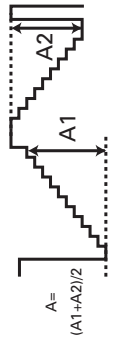
When the power supply for TC90A64AF-P (IC4001) is OFF, be careful not to apply any voltage to its terminals except for IIC lines(SDA and SCL). The IIC lines can accept a maximum of 5V.

No	Adjustment item	Input	Measuring point	Adjusting point	Measuring method and specs.	Remarks
1	3.3V power supply verification	Apply 14.4V to TP V11.	(TP V33)	—	$V33 = 3.3V \pm 0.3V$	
2	2.5V power supply verification	Apply 14.4V to TP V11.	(TP V25)	—	$V25 = 2.5V \pm 0.2V$	
3	5V power supply verification	Apply 14.4V to TP V11.	(TP V5)	—	$V5 = 5.0V \pm 0.3V$	
4	8V power supply verification	Apply 14.4V to TP V11.	(TP V8)	—	$V8 = 8.0V \pm 0.6V$	
5	18.5V power supply verification	Apply 14.4V to TP V11.	(TP V18)	—	$V18 = 18.5V \pm 0.8V$	
6	-12V power supply verification	Apply 14.4V to TP V11.	(TP VM12)	—	$VM12 = -12.0V \pm 0.6V$	

Notes:

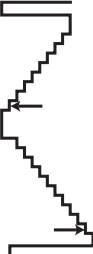
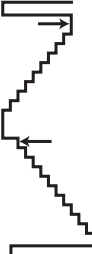
When the power supply for TC90A64AF-P is OFF, be careful not to apply any voltage to its terminals except for IIC lines(SDA and SCL). The IIC lines can accept a maximum of 5V.

2) In the following table, SA**h is a sub-address of TC90A64AF-P.

No	Adjustment item	Input	Measuring point	Adjusting point	Measuring method and specs.	Remarks
7	Vcom amp output Voltage waveform Verification	Any input signal	TP VCOM	—		
8	Input waveform verification (RGB)	Apply a white 100% signal to TP AVR,ANG, ANB.	TP ANR,ANG, ANB	—		The signal generator should be used via 75 ohms. (specs in desinging : 75.0 ± 0.2ohms)
9	Input waveform verification (composite)	Apply a white 100% signal to TP CVBS.	TP CVBS	—		The signal generator should be used via 75 ohms.
10	RGB amp output voltage waveform verification	Apply a black signal to TP ANR,ANG,ANB. (Video level:0%)	TP VG	—		The input signal has no setup. (Apply a black signal to TP CVBS)
11	Gamma 0 Verification	Apply a 10-step signal to TP ANR,ANG,ANB.	TP VG	—		The input 10-step signal has no setup.
12	Gamma 2 verification	Apply a 10-step signal to TP ANR,ANG,ANB.	TP VG	—		The input 10-step signal has no setup. If the measured value is out of specs, change the setting of SA24h D11 - 8 (γ2 inflection point: GAMMA2 in the line adjustment 1 mode) (Register setting specs: 4 ± 1)

Notes:

- 1) When the power supply for TC90A64AF-P is OFF, be careful not to apply any voltage to its terminals except for IIC lines(SDA and SCL). The IIC lines can accept a maximum of 5V.
- 2) In the following table, SA**h is a sub-address of TC90A64AF-P.

No	Adjustment item	Input	Measuring point	Adjusting point	Measuring method and specs.	Remarks
13	B SUB BRIGHT	Apply a 10-step signal to TP ANR,ANG, ANB.	TP VG and VB	Register setting of SA39h D11 - 8	Adjust the first step levels of the G waveform and the B waveform. 	Register setting specs : 8 ± 2 (specs in designing: 8 ± 1) In the Line adjustment 2 mode, SUB BRI B can be used as the adjusting point.
14	B SUB CONTRAST	Apply a 10-step signal to TP ANR,ANG, ANB.	TP VG and VB	Register setting of SA26h D7 - 1	Adjust the 10th step levels of the G waveform and the B waveform. 	Register setting specs: 64 ± 3 (specs in designing: 64 ± 2) In the Line adjustment 2 mode, SUB CON B can be used as the adjusting point.
15	R SUB BRIGHT	Apply a 10-step signal to TP ANR,ANG, ANB.	TP VG and VR	Register setting of SA39h D15 - 12	Adjust the first step levels of the G wave form and the R waveform.(Measuring point is the same as that of No.13.)	Register setting specs: 8 ± 2 (specs in designing: 8 ± 1) In the Line adjustment 2 mode, SUB BRI R can be used as the adjusting point.
16	R SUB CONTRAST	Apply a 10-step signal to TP ANR,ANG, ANB.	TP VG and VR	Register setting of SA26h D15 - 9	Adjust the 10th step levels of the G waveform and the R waveform.(Measuring point is the same as that of No.14.)	Register setting specs: 64 ± 3 (specs in designing: 64 ± 2) In the Line adjustment 2 mode, SUB CON R can be used as the adjusting point.
17	Horizon dot position	Any input signal	—	Register setting of SA2Ah D3 - 0	5(0101)	After being written in,the setting value of EEPROM is checked. 2 mode,DOT CLK can be used as the adjusting point.
18	Aging	Any input signal	—	—	Keep the unit in the operation mode for 30 minutes or longer.	Block light lighting. An animation is displayed.
19	Flicker	Input a signal for alternate white and black lines to TP ANR, TP ANG and TP ANB.	Screen	Register setting of SA22h D15 - 8	Adjust so that the flickers become minimum in all	If it input a signal for alternate white into TP CVBS, it is possible. (However, adjustment by RGB has priority.) The luminance level of the input signal: 50%. In the flicker adjustment mode, COM DC can be used as the adjusting point.

Flicker adjustment has been deviated The images flicker.

●EEPROM setting mode

*) Since this product does not have OSD IC, OSD for adjustment is displayed by using GGF1416 and GGF1463 at the time of monitor adjustment. As you will find lands for 14 pins with 0.8mm pitch at the left top part of the monitor board, directly solder a flexible PCB of GGD1323 for adjustment. As GGD1322 is not used, be careful not to short the terminal.

[Operations]

To enter the setting mode, while keeping the EPRTTEST terminal at "Low", turn reset the monitor micro computer. While pressing the [REAR] and [EQ] Kyes at the same time,reset.

Flicker adjustment mode

Line adjustment 1 mode

Line adjustment 2 mode

Dimmer parameter setting mode

[↑ ↓] button: Used to select a desired adjustment item in each mode

[←→] button: Used to adjust the selected item

Notes:

1) The setting values are written in the EEPROM and then the read-out data is displayed on the screen.

WRITE and READ operations are processed by the block data of 16 bits.

The total bits for the settings depend on adjusting items.

2) For CS (Check Sum) items, when the settings are changed, the CS value is written in 8 bits by applying the exclusive OR (XOR). The CS value is first written in the EEPROM and then the read-out data is displayed. If the written data is different from the read-out data, the letter color for the read-out data is changed.

● Memory items and addresses on the EEPROM(S-93C46BR0I-J8T1)

EEPROM address	Bit15	Bit14	Bit13	Bit12	Bit11	Bit10	Bit9	Bit8	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0	
00H	Dimmer external light threshold (high)								Dimmer external light threshold (low)								
01H	Backlight output (upper limit)								Backlight output (lower limit)								
02H	Common reverse output center (COM DC) PIP SA:22h[B15-8]								Common reserve output amplitude (COM AMP) PIP SA:22h[B7-2]						Don't care		
03H	Don't care		Output clamp DC (RGB BIAS) PIP SA:23h[B13-8]						Don't care				γ 0 inflection point (GAMMA 0) PIP SA:23h[B3-0]				
04H	γ 3 inflection point (GAMMA 3) PIP SA:24h[B15-12]				γ 2 inflection point (GAMMA 2) PIP SA:24h[B11-8]				γ 1 inflection point (GAMMA 1) PIP SA:24h[B7-3]				Don't care				
05H	Output sub contrast R (SUB CON R) PIP SA:26h[B15-9]							Don't care	Output sub contrast B (SUB CON B) PIP SA:26h[B7-1]							Don't care	
06H	Sub brightness R after γ circuit (SUB BRI R) PIP SA:39h[B15-12]				Sub brightness B after g circuit (SUB BRI B) PIP SA:39h[B11-8]				Don't care								
07H	Don't care								Don't care				Clock phase adjustment (DOT CLK) PIP SA:2Ah[B3-0]				
08H	Don't care								Don't care				Sharpness (SHARPNESS) PIP SA:05h[B2-1]		Don't care		
09H-1BH	Don't care																
1CH	Check sum address (00h-1bh)																
1DH	Don't care								Common reverse output center(Reference)								
1EH	Don't care												Clock phase adjustment initial value				
1FH	Don't care																
20H	External light of dimmer adjustment(H)								Back light of dimmer adjustment(H)								
21H	External light of dimmer adjustment(M)								Back light of dimmer adjustment(M)								
22H	External light of dimmer adjustment(L)								Back light of dimmer adjustment(L)								
23H-3FH	Don't care																

EEPROM initial value

Item	Meaning	initial value(hex)	initial value(DEC)
COM_DC	Common reverse output center	8C	140
COM_AMP	Common reverse output amplitude	1E	30
RGB_BIAS	Out clamp DC	00	00
GAMMA0	γ 0	02	02
GAMMA3	γ 3	04	04
GAMMA2	γ 2	04	04
GAMMA1	γ 1	13	19
SUB_CON_R	Output sub contrast R	40	64
SUB_CON_B	Output sub contrast B	40	64
SUB_BRI_R	Sub brightness R after γ circuit	08	08
SUB_BRI_B	Sub brightness B after γ circuit	08	08
DOT_CLK	Clock phase adjustment	05	05
SHARPNESS	Sharpness	03	03
BL_MAX	Back light output (Max.)	C4	196
BL_MIN	Back light output (Min.)	5B	91
REF_HIGH	Dimmer (H)	C0	192
REF_LOW	Dimmer (L)	60	96
LUM_HIGH	External light (H)	E2	226
LUM_MID	External light (M)	87	135
LUM_LOW	External light (L)	52	82
BL_HIGH	Back light (H)	C4	196
BL_MID	Back light (M)	C4	196
BL_LOW	Back light (L)	68	104

[Displays in each mode]

In the following figures, the letters and numbers surrounded by a large square are for OSD examples.

On the screen, the adjustment names and the settings (or written data) are listed.

The settings (or written data) will change when some adjustments are made in each mode.

* The following examples show the maximum values.

(1) Flicker adjustment mode

Adjustment item	Adjustment range	Adjustable name	Settings or written data (DEC)		
Common reverse output center	[0 - 255]	COM DC	255		

(2) Line adjustment 1 mode

Adjustment item	Adjustment range	Adjustable name	Settings or written data (DEC)		
Bright (SA22: B7-2)	[0 - 63]	BRIGHT	63		LINE1
Contrast (SA25: B7-1)	[0 - 127]	CONTRAST	127		
Common reverse output center	[0-255]	COM DC	255		
Common reverse output amplitude	[0-63]	COM AMP	63		
Output clamp DC	[0-63]	RGB BIAS	63		
Y0 inflection point	[0-15]	GAMMA0	15		
Y3 inflection point	[0-15]	GAMMA3	15		
Y2 inflection point	[0-15]	GAMMA2	15		
Y1 inflection point	[0-31]	GAMMA1	31		
				CS	FF

Notes:

1) CONTRAST data

The CONTRAST data is adjustable, and used as reference data for other adjustment items, which is not memorized in the EEPROM.

2) BRIGHT and COM AMP data

The BRIGHT and COM AMP adjustments are made by using the same 2-screen IC register(SA22h B7-2: common reverse output amplitude).

Therefore, adjusting one of the data will change the other one.

(3) Line adjustment 2 mode

Adjustment item	Adjustment range	Adjustable name	Settings or written data (DEC)		
Bright (SA22: B7-2)	[0 - 63]	BRIGHT	63		LINE2
Contrast (SA25: B7-1)	[0 - 127]	CONTRAST	127		
Output sub contrast R	[0 - 127]	SUB CON R	127		
Output sub contrast B	[0 - 127]	SUB CON B	127		
Sub brightness R after γ circuit	[0 - 15]	SUB BRI R	15		
Sub brightness B after γ circuit	[0 - 15]	SUB BRI B	15		
Clock phase adjustment	[0 - 15]	DOT CLK	15		
Sharpness	[0 - 3]	SHARPNESS	3		
				CS	FF

Notes:

1) CONTRAST data

The CONTRAST data is adjustable, and used as reference data for other adjustment items, which is not memorized in the EEPROM.

2) SUB BRI R and SUB BRI B data

The displayed value or EEPROM written data is different from the setting value for the 2-screen IC register (IC4001 : TC90A64AF-P).

(Before displayed on the screen, the setting value is converted via some software.)

Displayed value (adjusting value) (DEC)	EEPROM written value. (DEC)	2-screen IC register setting (BIN)	
15	15	0111	(MAX)
14	14	0110	
.	.	.	
.	.	.	
9	9	0001	
8	8	0000	(TIP)
7	7	1111	
.	.	.	
.	.	.	
1	1	1001	
0	0	1000	(MIN)

(4) Dimmer parameter setting mode

Adjustment item	Adjustment range	Adjustable name	Settings or written data (DEC)		
Backlight output (MAX)	[0 - 255]	BL MAX	FF		DIMMER
Backlight output(MIN)	[0 - 255]	BL MIN	FF		
Dimmer threshold (high)	[0 - 255]	REF H	FF		
Dimmer threshold (low)	[0 - 255]	REF L	FF		
External light point (high)	[0 - 255]	LUM H	FF		
External light point (middle)	[0 - 255]	LUM M	FF		
External light point (low)	[0 - 255]	LUM L	FF		
Backlight point (high)	[0 - 255]	BL H	FF		
Backlight point (middle)	[0 - 255]	BL M	FF		
Backlight point (low)	[0 - 255]	BL L	FF	CS	FF

Note:

The dimmer point data is memorized in the EEPROM, but not treated as a CS item.
It's because the settings are adjustable by the user.

● Dot Clock Adjustment Mode

[Operations]

- [Dot Clock adjustment mode] starting procedure
Reset start while pressing the [ENT] and [ANGLE+] Keys together.
- [Dot Clock adjustment mode] cancellation Monitor's microcomputer OFF.
- The operation after this should use Navigation's remote controller.
- [↑↑] button : Used to select a desired adjustment item in each mode.
- [— —] button : Used to adjust the selected item.

[EEPROM : S-93C46BR0I-J8T1]

The setting values are written in the EEPROM and then the read-out data is displayed on the screen.
WRITE and READ operations are processed by the block data of 16 bits.

[Display]

In the following figures,a large square are for OSD examples.

Dot Clock adjustment mode

Adjustment item	Adjustment range	Adjustable name	Settings or written data (DEC)		
Clock phase adjustment	[0 - 15]	DOT CLK	15		
Clock phase adjustment (initial)	[0 - 15]	[FACTORY	8]	
Common reverse output center	[0-255]	COM DC	255		
Common reverse output center adjustment (initial)	[0-255]	[FACTORY	140]	

* CS(Check Sum)display is not performed.

● To operate the Monitor Assy only

Setting of the TP1(EPRTTEST), TP2(TESTAGE) and TP3(TOUCHTS) in single operation mode is as follows.

TP2	TP3	TP1	Contents
L	H	H	For aging (See p.221.)
L	-	L	EEPROM setting mode (See p.222.)
L	L	H	Touch panel test mode (See p.231.)

H : Not connect

L : Connect to the ground

Contents of single operation mode

[For aging]

MVIPW : ON
MFLPW : ON
DIMMER : 5V (FFH)
BRIGHT : ± 0
CONTRAST : ± 0
WIDE MODE : Full size

[EEPROM setting mode]

MVIPW : ON
MFLPW : ON
DIMMER : The calculated value from coordinates of EEPROM data
BRIGHT : ± 0
CONTRAST : ± 0
WIDE MODE : Full size

[Touch panel test mode]

MVIPW : ON
MFLPW : ON
DIMMER : The calculated value from coordinates of EEPROM data
BRIGHT : ± 0
CONTRAST : ± 0
WIDE MODE : Full size

6.7 TEST MODE

● NAVIGATION TEST MODE

1. How to start the test mode

1. When +Battery and ACC are ON, push RESET and EJECT buttons simultaneously.
2. Release RESET button only.
3. When “password entry screen” is displayed, release EJECT button.
4. Enter the password.
5. When the password has been entered, press [ENTER] key.
6. If the correct password has been entered, the test mode menu will be displayed.

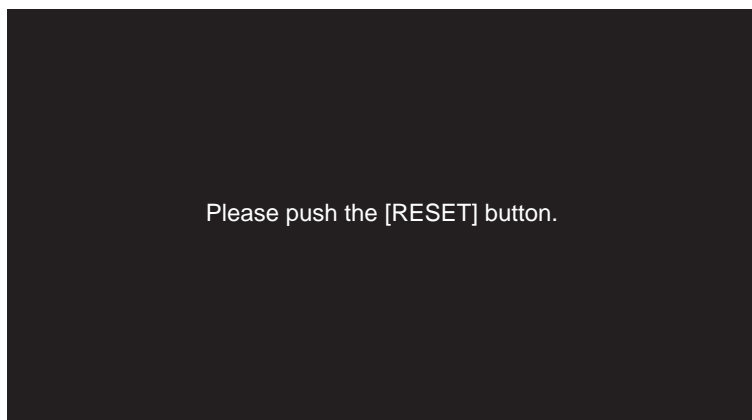
* The password entry screen, as the one used in the previous model, is no longer displayed.

<< Password for the service >>

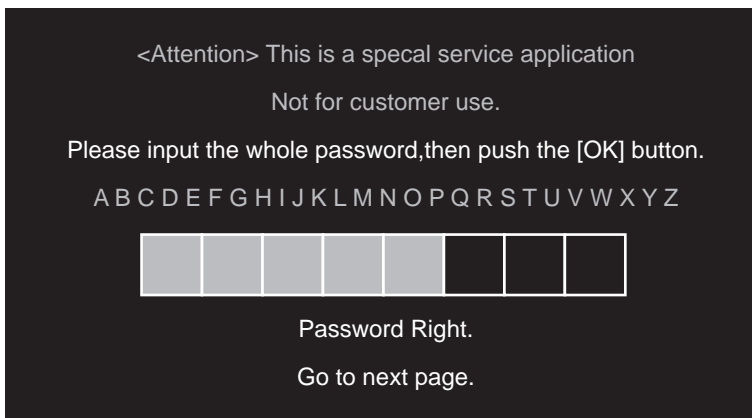
The password is [↑(up)] → [↑(up)] → [↓(down)] → [↓(down)] → [ENTER].

If 8 digits or more are entered and [ENTER] key is pressed, it will be treated as a password error.

- Password entry screen



- Password OK : After 2 seconds or so, the screen will automatically move on to the menu screen.



- Password NG : Nothing will be displayed, and reboot action will be taken.

2. Test mode menu

TESTMODE MENU [SERVICE_MENU(THCHNICAL)]

1. Remocon touch panel test
2. Version check
3. Error log
4. Format FLASH drive
5. Erase APL-file in FLASH
6. Clear backup memory
7. GPS backup data clear
8. GYRO SENSOR INFO data clear
9. Port status information

==> next page

SYSTEM Ver. : [BOOT] 0.65 [OS] 0.65

No.	Inspection item	Outline of inspection	Content if inspection
1	Remocon touch panel test	Remote controller touch panel inspection	Calibration setting and remote controller inspection are performed.
2	Version check	Version information check	Display of various version information. (system software, GPS, system microprocessor, microprocessor for mechanism control, microprocessor for timer). The screen will return to "menu" by BACK key.
3	ERROR log	Error history entry	History of system software errors stored in SRAM is displayed. Maximum 8 events from the error last occurred can be displayed. The screen will return to "menu" by BACK key.
4	Format FLASH drive	FLASH format	FLASH domain used by the system soft is initialized. When the job is done, the screen will return to "menu".
5	Erase APL-file in FLASH	Application file inside FLASH is clear	Application file inside FLASH is clear. *(Except voice data and SRAM backup variable) When the job is done, the screen will return to "menu".
6	Clear backup memory	Back up variables initialization	SRAM domain used by the system software is initialized. When the job is done, reboot action will be taken.
7	GPS backup data clear	GPS back up data clear	SRAM domain used by GPS is initialized. When the job is done, the screen will return to "menu".
8	GYRO SENSOR INFO data clear	Learned data inside gyro sensor is clear	Learned data inside gyro sensor is cleared. When the job is done, the screen will return to "menu".
9	Port status information	Port status display	Port status is displayed. (reverse, parking, pulse, SDRAM capacity.)

TESTMODE MENU [SERVICE_MENU(THCHNICAL)]

1. Change to display error [Message]
2. Start within debug shell [On]
3. Program loading [Version up]
4. GPS assessment
5. File maintenance
6. Program forced write

<== back page ==> next page
SYSTEM Ver. : [BOOT] 0.65 [OS] 0.65

No.	Inspection item	Outline of inspection	Content if inspection		
1	Change to display error	Switching of error information display	Display setting for error cases. (for debugging) Message/Information (error information) selectable.		
2	Start within debug shell	Switching of debug shell start	Setting for debug shell start. (for debugging) Off (no initial start)/On (initial start) selectable.		
3	Program loading	Switching of program loading	Recognition method for boot up program write is changed.		
			Disc version (default)	System program	Write when the version No. in the disc is higher.
				System data	Write when the version No. in the disc is higher.
				GPS program	Write when the version No. in the disc is higher.
				Application program	Write when the version information is different from the one in disc.
			Version upgrade (for debug)	System program	Write when the version No. in disc or card is higher.
				System data	Write when the version No. in disc or card is higher.
				GPS program	Write when the version No. in disc or card is higher.
				Application program	Write when the version No. in disc or card is higher.
4	GPS assessment	GPS assessment system start	GPS assessment system can be used. The system will return to "menu" by BACK key.		
5	File maintenance	File maintenance function	File maintenance operations are made. Formatting of SRAM drive and PC card (ATA Flash Card) are made. SRAM data is retrieved and copied to PC card. Data retrieved from SRAM is copied to SRAM from PC card.		
6	Program forced write	Program forced write	Rewriting of SYS (system), GPS (GPS) and APL (application) software are done by force. (Joystick is used) The system will return to "menu" by BACK key.		

TESTMODE MENU [SERVICE_MENU(THCHNICAL)]

1. SRAM / SDRAM test
2. SENSOR test
3. CD-ROM reading test
4. RGB test
5. MS3 check
6. Region code

<== back page ==> next page
SYSTEM Ver. : [BOOT] 0.65 [OS] 0.65

No.	Inspection item	Outline of inspection	Content if inspection
1	SRAM/SDRAM test	Memory inspection	SRAM : Device inspection and bus inspection are performed against all SRAM domains. Data will be protected. (applicable to both 32M and 64M) SDRAM : Device inspection and bus inspection are performed against all SDRAM domains. Data will be protected for both BIOS domain and USER domain. The function for SDRAM all domain inspection will activate by the built-in instruction RAM.
2	SENSOR test	Sensor inspection	G sensor, gyro, power supply voltage and installation condition are displayed. The system will return to "menu" by BACK key.
3	CD-ROM reading test	CD-ROM read test	Inspection for reading by CD-ROM drive is performed.
4	RGB test	Image RGB inspection	RGB inspection (Upper half, 8 colors. Black/blue/red/pink/green/light blue/yellow/white display. Lower half, 3 colors. Red/green/blue.) → red (FULL)→green (FULL)→blue (FULL)→ Switching can be made by [←] and [→] keys. The system will return to "menu" by BACK key.
5	MS3 check	MS3 check [V+R]	MS3 mechanism test mode inspection.
6	Region code	Region code display	Region code display.

3. How to select test mode menu

Select a desired menu by [↑] and [↓] keys, and execute by pressing [ENTER] key.
Pages can be changed by [←] and [→] keys.

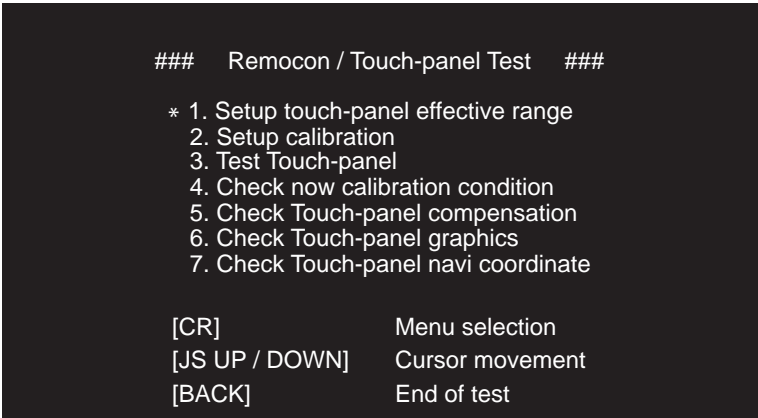
4. Version information

Version No. for BOOT section = X.XX System software does not exist in SDRAM.
Version No. for BOOT section = X.XX Version No. for SDRAM = Y.YY

● Remocon touch panel test

- How to operate the touch panel test mode is described below.
 - First, “1. Setup touch-panel effective range” in the touch panel test menu is made.
 - Next, “3. Test Touch-panel”, and if the result is OK, then EXIT the screen.
 - If the result is NG, conduct “2. Setup calibration”, and conduct “3. Test Touch-panel” once again. If the result is OK, then EXIT the screen.
 - Furthermore, details of the misalignment can be verified by the “5. Check Touch-panel compensation”.
- *) When inspecting the touch panel, use something thin with a round tip such as the touch pen. Furthermore, do not apply excessive force to the touch panel.

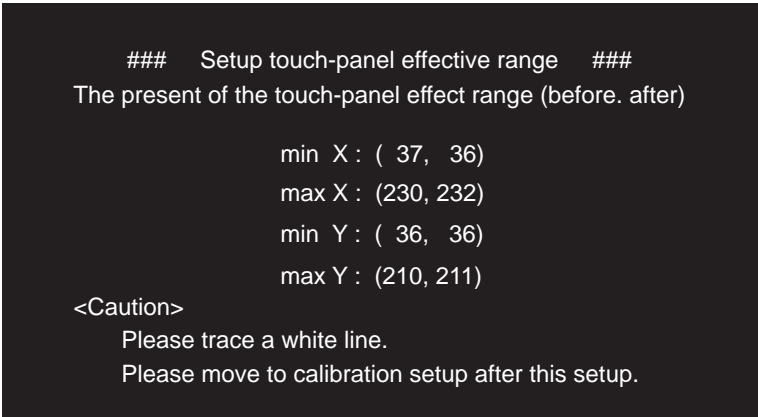
Main Menu



“*” mark shown on the left side of menu item “1” indicates that the setting has been completed. The setting items where “*” is actually indicated will be “1. Setup ~” and “2. Setup ~” only.

- [CR] Enter
- [UP/DOWN] Selection of the inspection item
- [BACK] Return (to the test mode menu)

1. Setup touch-panel effective range



Adjustment steps

- 1) Trace the edge of the screen along the monitor resin frame with a round-headed thing to obtain the coordinates.
- 2) Press the [BACK] key.

Explanation of the displays

- min_x(A,B) : X coordinate of the touch panel • minimum value received
- max_x(A,B) : X coordinate of the touch panel • maximum value received
- min_y(A,B) : Y coordinate of the touch panel • minimum value received
- max_y(A,B) : Y coordinate of the touch panel • maximum value received

A = A coordinate which is already stored in the SRAM (If there is no previous data in the SRAM, "min=90, max=180" will be displayed).

B = An updated coordinate which is planned to be set in the SRAM this time (If there is no previous data in the SRAM, "min=90, max=180" will be displayed).

[BACK] : The preset effective range is registered, and the screen will return to the remote controller inspection menu. The data of the effective range will be recorded in the SRAM.

In case the compensation value is not preset in the SRAM, the following initial (default) value will be entered automatically at the time of navigation system boot up.

min_x = 42 (right edge limit value)

max_x = 246 (left edge limit value)

min_y = 49 (bottom edge limit value)

max_y = 238 (top edge limit value)

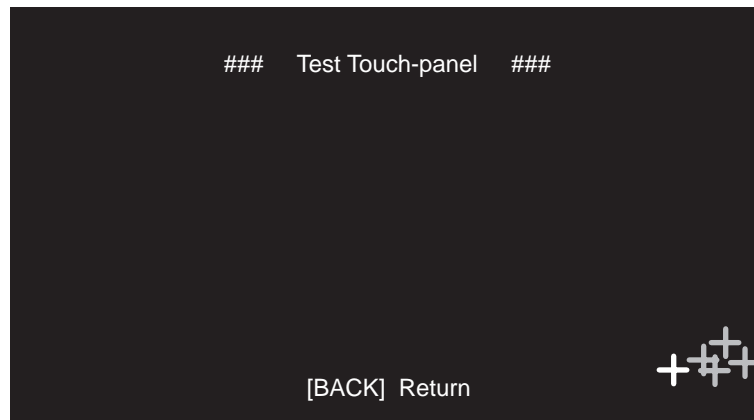
2. Setup calibration



Explanation

- A [+] cursor is displayed at 16 locations on the screen for calibration. Finally, verification of a single point is made. The cursor is always displayed at one location only, and moves on to the next location as the current one is correctly pressed.
- When pressing on the [+] cursor, make sure to press at the center of "+".
- The result of calibration will be recorded in the SRAM.
- If effective operation is not made for 30 seconds, the system will recognize as "erroneous end" and stops the calibration.

3. Test Touch-panel

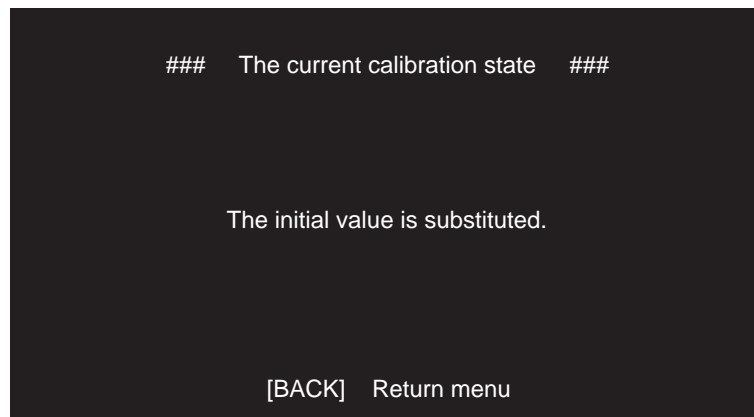


Explanation on touch panel misalignment verification test.

- 1) The test is intended to verify if the touched point on the touch panel is correctly recognized or not.
 [+] cursor will be displayed at 16 locations on the screen.
 The cursor will be displayed in "white color" only one at a time.
 Each time the cursor is touched correctly, the next point will be displayed.
 On the other hand, if it is recognized that the point touched was ± 4 dots vertically and ± 5 dots horizontally away from the center of the displayed [+] cursor, the erroneously recognized coordinate [+] will be drawn in "red color".
- 2) When touching the [+] cursor, touch the center of the + mark correctly.
- 3) If [BACK] is touched, the test will be finished, and the screen will return to the menu screen of the touch panel test mode.

If this test turns out to be NG, it will be necessary to redo "1. Setup touch-panel effective range" and "2. Setup calibration". Repeat the above steps once again.

4. Check now calibration condition



Explanation on the setting status of the calibration compensation value.

The current calibration compensation status is displayed.

The following data will be displayed.

"With no calibration value" (in white characters)

In case the compensation value does not exist in the SRAM.

"The effective range value is stored"

In case the compensation value for the upper limit and the lower limit are preset in the SRAM.

"The calibration compensation value is stored"

In case the calibration compensation values for the 16 points are preset in the SRAM.

"The effective range & calibration value is stored."

In case the upper limit and the lower limit values and the 16 points calibration values are preset in the SRAM.

"The initial value is substituted."

In case the value stored as the initial (default) value is preset in the SRAM.

"Error Condition"

In case the SRAM value is demolished or some unexpected situation is happening.

5. Check Touch-panel compensation

Compensation check test



[BACK]

Back to menu

[BACK] : The system will return to the remote controller inspection menu.

Explanation of the inspection details

- Regarding this inspection, the title only will be displayed at the initialized stage.
- As shown by the arrow, press any desired location on the monitor.
- A coordinate after the calibration correction will be displayed by the [+] mark against the coordinate recognized as pressed.

6. Check Touch-panel graphics

Touch-panel coordinates test

Cross drawing dot : (79, 80)

From system CPU : (0, 0)

Coverision effective : (0, 0)

After calibration : (0, 0)

[POSITION +] Display of the cood nates pushed

[BACK] Return menu

[NAVI] + pressing the touch panel : The coordinate of the touch panel at that time will be displayed.

[↑] : Horizontal line will move upward.

[↓] : Horizontal line will move downward.

[←] : Vertical line will move to the left.

[→] : Vertical line will move to the right.

[BACK] : The system will return to the remote controller inspection menu.

Explanation of the displayed coordinate (from top to bottom)

(79, 80) : Coordinate of the crossing point by the vertical and the horizontal lines (X direction, Y direction).

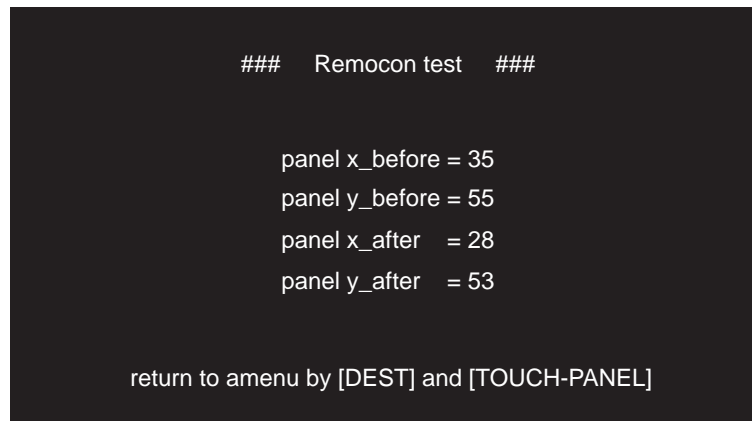
[(0~500, 0~240)]

(0, 0) : AD data value (X direction, Y direction) representing the coordinate of the pressed location received from the system control microprocessor.

(0, 0) : Coordinate (X direction, Y direction) obtained by normalizing the AD data value of the pressed location within the effective range.

(0, 0) : Coordinate (X direction, Y direction) obtained by adding the correction based on calibration to the normalized coordinate.

7. Check Touch-panel navi coordinate



[BACK] + pressing the touch panel will make the system return to the remote controller inspection menu.

Explanation of the displayed content.

panel x_before : X coordinate normalized (expanded) within the effective range.

panel y_before : Y coordinate normalized (expanded) within the effective range.

panel x_after : X coordinate obtained by adding the correction based on calibration.

panel y_after : Y coordinate obtained by adding the correction based on calibration.

Version check

VERSION INFORMATION

1. System boot version	[	0.65]
2. System OS version	[	0.65]
3. GPS program version	[	3.60]
4. Application version	[	NG]
5. Language data version	[	NG]
6. Sound data version	[	NG]
7. Syscom version	[	6.11]
8. Drive core version	[	9.22]
9. Drive apl version	[	8.21]
10. TV ucom version	[	7.01]
+			

Return = [BACK]

item	content	information	filename
1 System boot version	Version information of the system software BOOT section (FLASH) is displayed.	*** -> Version information of the system software BOOT section	EW040BOT.GBR UC040BOT.GBR
2 System OS version	Version information of the system software OS section (FLASH) is displayed.	*** -> Version information of the system software OS section NG -> System program doesn't exist.	EW040SYS.xxx (xxx : GBR, DEU, FRA, ITA, NLD, ESP, SWE, DNK) UC040DAT.yyy (yyy : USA, FRA, ESP)
3 GPS program version	Version information of the GPS program (DRAGON) is displayed.	*** -> Version information of the GPS program NG -> GPS program doesn't exist.	EW040GPS.PRG UC040SYS.PRG
4 Application version	Version information of the application program (FLASH) is displayed.	*** -> Version information of the application program NG -> Application program doesn't exist.	EU040APL.PRG
5 Language data version	Version information of the language data (FLASH) is displayed.	*** -> Version information of the language data NG -> Language data doesn't exist.	EW040DAT.xxx (xxx : GBR, DEU, FRA, ITA, NLD, ESP, SWE, DNK) UC040DAT.yyy (yyy : USA, FRA, ESP)
6 Sound data version	Version information of the sound data (FLASH) is displayed.	*** -> Version information of the sound data NG -> Sound data doesn't exist.	EW040SDF.xxx (xxx : GBR, DEU, FRA, ITA, NLD, ESP, SWE, DNK, BEL) UC040SDF.yyy (yyy : USA, FRA, ESP)
7 Syscom version	Version information of the system microprocessor is displayed.	*** -> Version information of the system microprocessor NG -> Communication with the system microprocessor has not been established.	
8 Drive core version	Core version information of the microprocessor for mechanism control is displayed (V+R)	*** -> Core version information of the microprocessor for mechanism control NG -> Communication with the microprocessor for mechanism control has not been established. NON -> ROM only mechanism	
9 Drive apl version	Application version information of the microprocessor for mechanism control is displayed (V+R)	*** -> Application version information of the microprocessor for mechanism control NG -> Communication with the microprocessor for mechanism control has not been established. NON -> ROM only mechanism	
10 TV ucom version	Version information of the microprocessor for TV is displayed	*** -> Version information of the microprocessor for TV NG -> Communication with the microprocessor for TV has not been established.	
11 Monitor ucom version	Version information of the microprocessor for Monitor is displayed	*** -> Version information of the microprocessor for Monitor NG -> Communication with the microprocessor for Monitor has not been established.	
12 System language	System language file in the system program (FLASH) is displayed	*** -> System language program file name NG -> System language data doesn't exist.	EW040SYS.xxx (xxx : GBR, DEU, FRA, ITA, NLD, ESP, SWE, DNK, BEL) UC040SYS.yyy (yyy : USA, FRA, ESP)
13 Application language	Application language data file (FLASH) is displayed	*** -> Application language data file name NG -> Application language data doesn't exist.	EW040DAT.xxx (xxx : GBR, DEU, FRA, ITA, NLD, ESP, SWE, DNK, BEL) UC040DAT.yyy (yyy : USA, FRA, ESP)
14 Sound data language	Language sound data file (FLASH) is displayed	*** -> Language sound data file name NG -> Language sound data doesn't exist.	EW040SDF.xxx (xxx : GBR, DEU, FRA, ITA, NLD, ESP, SWE, DNK, BEL) UC040SDF.yyy (yyy : USA, FRA, ESP)

● Error Information

1. Error Information

Descriptions of error information, for errors arising from system software problems, will be provided in this section.

Up to eight sets of information, related to the system software's errors, will be stored in the SRAM.

By executing hi_sysdwn() the line number (on which the error occurred), the error code and detailed information of the error, will be stored in the error log.

Hi_sysdwn() will be executed in the following two circumstances:

1. hi_sysdwn() will be intentionally stored if fatal errors occur with each BIOS.
2. If multiple exceptions, fatal exceptions, illegal command codes and trap command errors occur.

2. Error Log's Entry Function

Up to twenty-four sets of information, related to errors starting with the latest error, will be displayed by the error log entry function.

There are two types of error log displays.

The display will vary when the argument provided to hi_sysdwn(), depending on whether detailed information (such as program name, version number, creation date, creation time and creator name) exists or not.

1. When detailed information exists:

```

** ERROR INFORMATION **

ERCD = 00000028(40)
FILE  = ini_usf.c
LINE  = 510(000001fa)
VERS  = 1.1.1.1
DATE  = 2003/08/08
TIME  = 06:07:26
AUTH  = daisuke

ERROR-TIME ffff-ff-ff ff:ff:ff

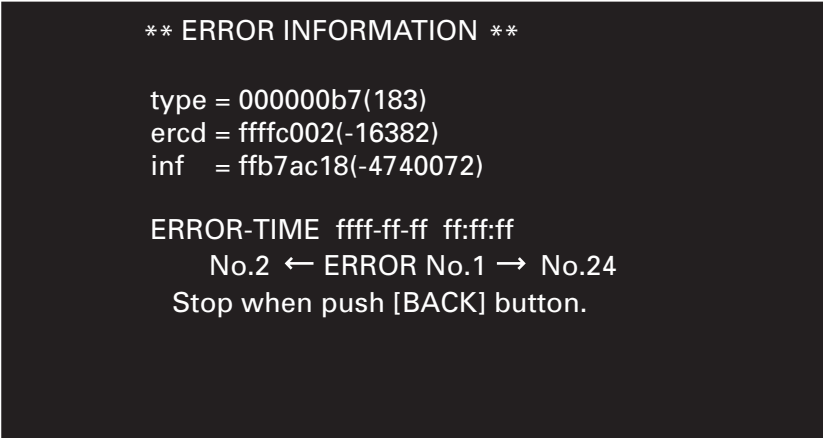
No.4 ← ERROR No.3 → No.2
Stop when push [BACK] button.

```

ERCD	Error code.
FILE	Error occurring program name.
LINE	Error occurring program line number.
VERS	Error occurring program version number.
DATE	Error occurring program creation date.
TIME	Error occurring program creation time.
AUTH	Error occurring program creator name.
ERROR-TIME	Error occurrence date and time.

2. When detailed information does not exist:

A



B

type	Error occurring program line number.
ercd	Error code.
inf	System down information.
ERROR-TIME	Error occurrence date and time.

C

If an error occurs due to a multiple exception, the definitions will change to the following:

type	Execution address at the time of error occurrence.
ercd	Contributing factor for the exceptions.
inf	Program status word at the time of error occurrence.
ERROR-TIME	Error occurrence date and time.

D

3. Error Information Switch

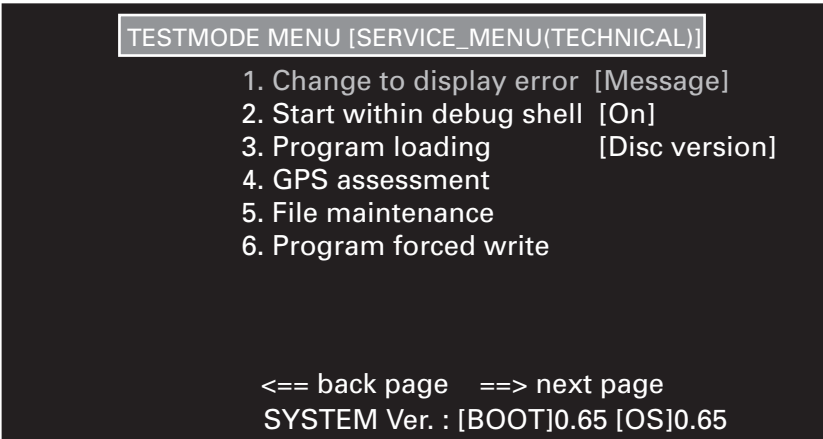
The product (with default settings) will display error messages to the user if an error occurs.
Error information can be displayed if an error occurs by switching the error information in the test mode.
In either case, the error log entry display will be the same.

D

1) Error message display (default settings):

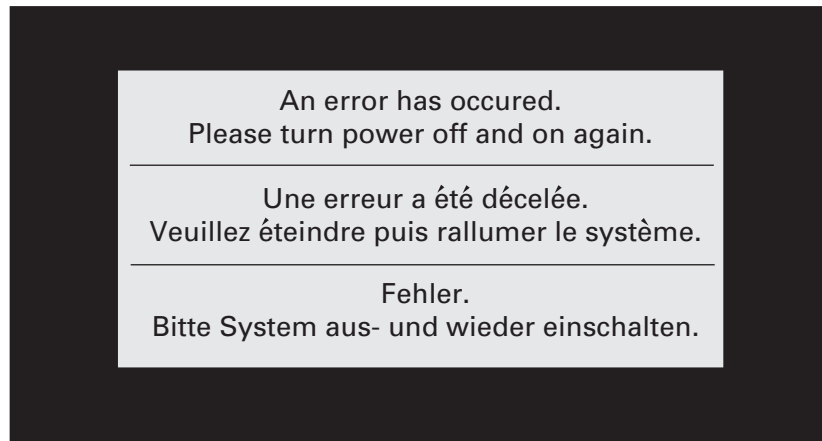
• Setting in the test mode:

E



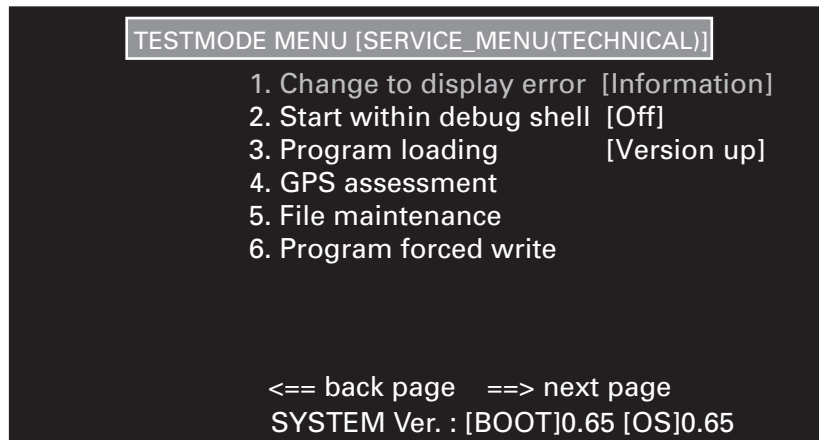
F

- Display when an error occurs:



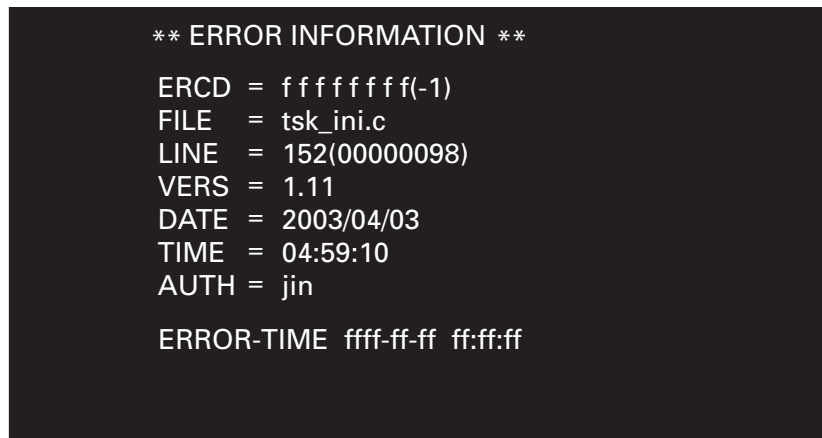
2) Error information display

- Settings in the test mode:



Display when an error occurs:

- If error information exists:



- If error information does not exist:

** ERROR INFORMATION **

type = 00000109(265)

ercd = 00000001(1)

inf = ffe83230(-1560016)

ERROR-TIME ffff-ff-ff ff:ff:ff

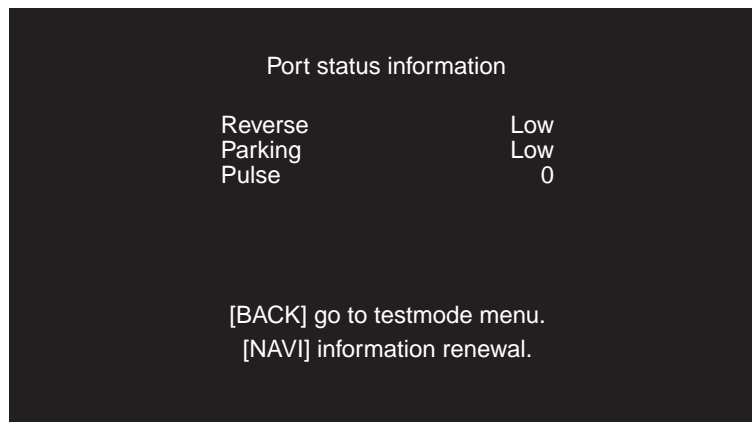
4. Watch dog timer

This product has a built-in mechanism to monitor at a certain interval whether the software is correctly operating or not.

Once this mechanism becomes inoperable, "reset request" will be sent to the power supply microprocessor when a preset time (approximately 4 seconds) has elapsed.

In order to record operational situation of such an occasion, a special code which is not an error code is recorded in the ERCD.

● Port status information



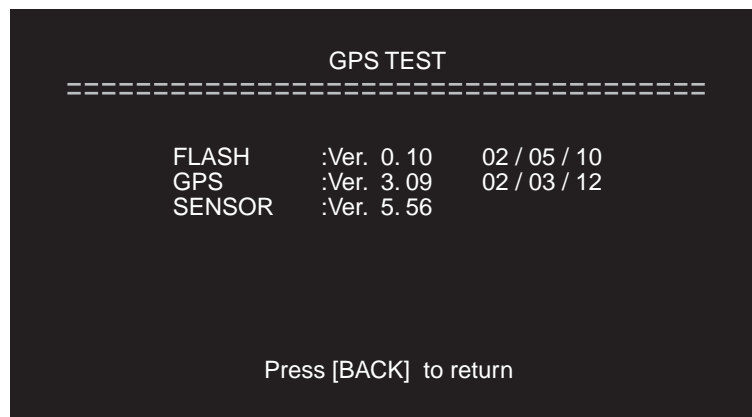
Display	Content of inspection
Reverse	Reverse port status
Parking	Parking port status
Pulse	Pulse status

How to operate.

[BACK] : Return to the test mode menu.

[NAVI] : Update of the port status.

● GPS assessment



FLASH	Display of DRAGON FLASH ROM version information.
GPS	Display of GPS version information.
SENSOR	Display of sensor version information.

● SENSOR test

SENSOR TEST

```
=====
G-SENSOR      :      1.9875 [V]
GYRO          :      2.4804 [V]
POWER         :      14.9453 [V]
FIT UP        :      OK (Best)
DISTANCE      :      SPEED PULSE
LOW SPEED     :      OK
```

Press [BACK] to return

G-SENSOR	Display of G sensor voltage		
GYRO	Display of gyro voltage		
POWER	Display of power supply voltage		
FIT UP	Display of installation status		
	Display	Status	
	• NG	Installation position is NG.	
	• OK	Installation position is OK. (3rd best)	
	• OK (Better)	Installation position is OK. (2nd best)	
	• OK (Best)	Installation position is OK. (Best)	
DISTANCE	Display of distance calculation status.		
	Display	Status	
	• INITIALIZE	Sensor initial learning is under way.	
	• GPS	GPS distance. (Model without G sensor. No pulse connection.)	
	• G-SENSOR	G sensor distance. (simple hybrid.)	
	• ND-PG1	ND-PG1 distance.	
	• SPEED PULSE	Vehicle speed pulse distance.	
LOW SPEED	Display of minimum output speed of a low speed NG vehicle. (Depends on DISTANCE status.)		
	DISTANCE status	SPEED PULSE status	Display
	SPEED PULSE	Low vehicle speed pulse learning is under way.	CHECK
		Low vehicle speed pulse is OK.	OK
		Low vehicle speed is NG.	NG xx[km/h]
	Others		-----

● DVD Test Modes

CAUTIONS

Protection is not operational against a mechanical runaway conditions during servo testing.
Critical damage can result if the system is allowed to continue in a mechanical runaway state.
If abnormal noise is heard during the test, turn the power OFF immediately.

Keys used for the DVD test mode

[OK] : Selection decided.

[BACK] : Go back.

Directional keys : [↑ ↓ ← →] keys

[MS3 X-3016 Test]

```
[MS3 X-3016 Test]

Firm Ware Revision.
Core Ver ** ** Apl Ver ** **

[1] FE TestMode
[2] EDC-1 mode
[3] EDC-2 mode
[4] MS3 Memory Clear Start

Press [OK] to make a selection
Press [BACK] to X-3016 Test top
```

Firm Ware Revision : Version of the drive used.

- [1] Start the FE test mode.
- [2] EDC1 mode (available for DVDs only).
- [3] EDC2 mode (available for DVDs only).
- [4] Executes the MS3 memory cleaning operation.
- [OK] Executes.
- [BACK] Returns to the test mode menu.

[X-3016 FE Test menu]

[X-3016 FE Test menu]
Status : Power Off Data : 0000 0000

- [1] Power On
- [2] Disc tipe : DVD 1-Layer
- [3] Disc tipe : DVD 2-Layer
- [4] Disc tipe : CD
- [5] Disc tipe : CD-RW
- [6] Disc Eject

Press [OK] to make a selection
Press [BACK] - Test top(Power Off)

Status : "Power Off (during normal conditions)."

- [1] Power On (proceed to servo test 1-0).
- [2] Disc type : DVD single-layer.
- [3] Disc type : DVD double-layer.
- [4] Disc type : CD.
- [5] Disc type : CD-RW.
- [6] Ejects the Disc.
- [OK] Executes.
- [BACK] Returns to the initial screen display for the test.

[X-3016 DVD Test]

[X-3016 DVD Test] EDC-1

Layer : 0
ID : 20 03 0A 63

- [1] Select Layer 0
- [2] Select Layer 1
- [3] Disc Eject

Press [OK] to make a selection
Press [BACK] to DVD Test top(EDC end)

EDC-1 : Performs consecutive EDC tests.
EDC-2 : Performs EDC tests for each block.
ID : Performs ID of the test.

- [1] Select layer 0.
- [2] Select layer 1.
- [3] Ejects the Disc.
- [OK] Executes.
- [BACK] Returns to the test mode menu.

[X-3016 DVD Test]

[X-3016 DVD Test] EDC-1

Layer : 0
ID : 20 03 0A 63

- [1] cursor right
- [2] cursor left
- [3] cursor up
- [4] cursor down
- [5] Star EDC-1
- [6] Disc Eject

Press [OK] to make a selection
Press [BACK] to DVD Test top(EDC end)

EDC-1 : Performs consecutive EDC tests.
EDC-2 : Performs EDC tests for each block.
ID : Performs ID of the test.

- [1] Moves the cursor to the right by one increment.
- [2] Moves the cursor to the left by one increment.
- [3] Moves the cursor up by one increment.
- [4] Moves the cursor down by one increment.
- [5] Starts the EDC test.
- [6] Ejects the Disc.
- [OK] Executes.
- [BACK] Returns to the test mode menu.

[X-3016 DVD 1-Layer Servo. Test(1-0)]

[X-3016 DVD 1-Layer Servo.Test(1-0)]
Status : Power On Data : 1000 0000

- [1] Focus Close
- [2] Focus Search(Start/Stop)
- [3] CRG + (Start/Stop) [4] CRG - (Start/Stop)
- [5] (LD-ON->LD-OFF / LD-OFF->LD-ON)
- [6] CRG HOME

FE Offset : 0000 0000 TE Offset : 0000 0000
AS Offset : 0000 0000 ENV Offset : 0000 0000
TG Offset : 0000 0000 DBAL : 0000 0000

Press [OK] to make a selection
Press [BACK] to DVD-1

Test items are basically the same for both DVDs and CDs.

Status : "Power On (during normal conditions)."

- [1] Closes in on the focus (proceed to servo test 2-0).
- [2] Performs a focus search operation (S-curve measurement). Focus operation will then be stopped.
- [3] Moves the carriage (external). The carriage transition operation will then be stopped.
- [4] Moves the carriage (internal). The carriage transition operation will then be stopped.
- [5] Performs LD-ON/OFF operation.
- [6] Returns the carriage to the home position.
- [BACK] Returns to the DVD test menu screen display.

* This operation will not be performed until the coefficient figures have been received.

* Focus closing and searching will not operate unless the LD-ON setting is made to less than 9 seconds.

[X-3016 DVD 1-Layer Servo. Test(2-0)]

[X-3016 DVD 1-Layer Servo.Test(2-0)]
 Status : Focus Closed Data : 2000 0000

[1] T.Bal
 [2] Focus Jump
 [3] CRG + (Start/Stop)
 [4] CRG - (Start/Stop)

FE MAX : 0000 0000 FE MIN : 0000 0000
 AS MAX : 0000 0000 ENV MAX : 0000 0000
 FE Normal : 0000 0000
 TE MAX : 0000 0000 TE MIN : 0000 0000

Press [OK] to make a selection
 Press [BACK] to DVD-1

Test items are basically the same for both DVDs and CDs.

Status : "Focus Close (during normal conditions)."

- [1] Adjusts tracking balance (proceeds to servo test 3-0).
- [2] Performs a focus jump operation.
- [3] Moves the carriage (external). The carriage transition operation will then be stopped.
- [4] Moves the carriage (internal). The carriage transition operation will then be stopped.
- [BACK] Returns to the DVD test menu screen display.

* This operation will not be performed until the coefficient figures have been received.

[X-3016 DVD 2-Layer Servo. Test(3-0)]

[X-3016 DVD 2-Layer Servo.Test(3-0)]
 Status : Focus Closed2 Data : 3000 0000

[1] Tracking Close
 [2] CRG + (Start/Stop) [3] CRG - (Start/Stop)

T.Bal(Layer 0) : 0000 0000
 T.Bal(Layer 1) : 0000 0000
 TE Normal(Layer 0) : 0000 0000
 TE Normal(Layer 1) : 0000 0000

Press [OK] to make a selection
 Press [BACK] to DVD-1

Test items are basically the same for both DVDs and CDs.

Status : "Focus Close 2 (during normal conditions)."

- [1] Performs tracking close operation (proceeds to servo test 4-0).
- [3] Moves the carriage (external). The carriage transition operation will then be stopped.
- [4] Moves the carriage (internal). The carriage transition operation will then be stopped.
- [BACK] Returns to the DVD test menu screen display.

* This operation will not be performed until the coefficient figures have been received.

[X-3016 DVD 2-Layer Servo. Test(4-0)]

```

[X-3016 DVD 2-Layer Servo.Test(4-0)]
Status :Tracking Close    Data : 4000 0000

[1] Error Rate...1.105E-4  [2] Read Speed: x1.3 CLV
[3] Track Jump+  [4] Track Jump-
[5] Focus Jump  [6] ID Search
[7] Tracking Open (to Focus Close)

F.Bal(0) : 0000 0000  F.Gain(0) : 0000 0000
F.Bal(1) : 0000 0000  F.Gain(1) : 0000 0000
T.Gain(0) : 0000 0000  AS Normal(0) : 0000 0000
T.Gain(1) : 0000 0000  AS Normal(1) : 0000 0000

Press [OK] to make a selection
Press [BACK] - DVD-1

```

Test items are basically the same for both DVDs and CDs.

Status : "Tracking Close (during normal conditions)."

- [1] [OK] triggers measurement of the error rates (other operations can not be performed for approximately 10 seconds).
- [2] [OK] triggers switching of the reproduction speed.
- [3] Performs track jumping by a designated number of tracks (external).
- [4] Performs track jumping by a designated number of tracks (internal).
- [5] Performs a focus jump operation (for DVDs only).
- [6] Designates an ID (for DVDs only).
- [7] Performs a tracking open operation (for the focus close status : will proceed to servo test 2-0).
- [BACK] Returns to the DVD test menu screen display.

* This operation will not be performed until the coefficient figures have been received.

Reproduction speeds

L0-layer	DVD x 1.3CLV, CD x 2	4000 0000
L0-layer	DVD x 1CLV	4200 0000
L1-layer	DVD x 1.3CLV	4100 0000
L1-layer	DVD x 1CLV	4300 0000

[X-3016 DVD Servo. Test(4-3)]

```

[X-3016 DVD Servo.Test(4-3)]
Status :Tracking Closed    Data : 4x00 0000

[1] Track appointment
[2] Start Track Jump+/-

Press [OK] to make a selection
Press [BACK] to Back

```

Test items are basically the same for both DVDs and CDs.

Status : "Tracking Close (during normal conditions)."

- [1] Performs a track number designation (MS3 cyclically switches the available patterns).
- [2] Starts the tracking jump operation (will proceed to servo test 4-0).

[X-3016 DVD Servo. Test(4-6)]

[X-3016 DVD Servo.Test(4-6)]
Status :Tracking Close Data : 4A00 0000

- [1] ID appointment : 0000 0000
- [2] cursor right
- [3] cursor left
- [4] cursor up
- [5] cursor down
- [6] Start ID Search

Press [OK] to make a selection
Press [BACK] to Back

Available for DVDs only.

Status : "Tracking Close (during normal conditions)."

- [1] Displays designated ID.
- [2] Moves the cursor to the right by one increment.
- [3] Moves the cursor to the left by one increment.
- [4] Moves the cursor up by one increment.
- [5] Moves the cursor down by one increment.
- [6] Starts the ID search operation (return to servo test 4-0).

Display data of adjustment value

FE Offset	FE offset coefficient	0000 0000[h] - FFFF FFFF[h]
TE Offset	TE offset coefficient	0000 0000[h] - FFFF FFFF[h]
AS Offset	AS offset coefficient	0000 0000[h] - FFFF FFFF[h]
ENV Offset	ENV offset coefficient	0000 0000[h] - FFFF FFFF[h]
TG Offset	TG offset coefficient	0000 0000[h] - FFFF FFFF[h]
DBAL	DBAL offset coefficient	0000 0000[h] - FFFF FFFF[h]
FE MAX	FE MAX level	0000 0000[h] - FFFF FFFF[h]
FE MIN	FE MIN level	0000 0000[h] - FFFF FFFF[h]
AS MAX	AS MAX level	0000 0000[h] - FFFF FFFF[h]
ENV MAX	ENV MAX level	0000 0000[h] - FFFF FFFF[h]
FE Normal	FE normalize coefficient	0000 0000[h] - FFFF FFFF[h]
S.Gain	Spindle gain coefficient	0000 0000[h] - FFFF FFFF[h]
T.Bal (layer-0)	TBAL coefficient (layer-0)	0000 0000[h] - FFFF FFFF[h]
T.Bal (layer-1)	TBAL coefficient (layer-1)	0000 0000[h] - FFFF FFFF[h]
G.Bal (layer-0)	GBAL coefficient (layer-0)	0000 0000[h] - FFFF FFFF[h]
G.Bal (layer-1)	GBAL coefficient (layer-1)	0000 0000[h] - FFFF FFFF[h]
TE Normal (layer-0)	TE normalize coefficient (layer-0)	0000 0000[h] - FFFF FFFF[h]
TE Normal (layer-1)	TE normalize coefficient (layer-1)	0000 0000[h] - FFFF FFFF[h]
F.Bal (layer-0)	FBAL coefficient (layer-0)	0000 0000[h] - FFFF FFFF[h]
F.Bal (layer-1)	FBAL coefficient (layer-1)	0000 0000[h] - FFFF FFFF[h]
F.Gain (layer-0)	Focus gain coefficient (layer-0)	0000 0000[h] - FFFF FFFF[h]
F.Gain (layer-1)	Focus gain coefficient (layer-1)	0000 0000[h] - FFFF FFFF[h]
T.Gain (layer-0)	Tracking gain coefficient (layer-0)	0000 0000[h] - FFFF FFFF[h]
T.Gain (layer-1)	Tracking gain coefficient (layer-1)	0000 0000[h] - FFFF FFFF[h]
AS Normal (layer-0)	AS normalize adjustment value (layer-0)	0000 0000[h] - FFFF FFFF[h]
AS Normal (layer-1)	AS normalize adjustment value (layer-1)	0000 0000[h] - FFFF FFFF[h]

6.8 USING THE TEST DISC

TEST DISC Part No. : GGV1137

REMOTE CONTROLLER Part No.

Part No.	Description
CXB7427	Co-packed remote controller with AVIC-8DVD/EW
CXB7426	Co-packed remote controller with AVIC-9DVD/EW, UC
CXB9118	Co-packed remote controller with AVIC-8DVD-2/EW, -9DVD-2/EW, -90DVD/UC
CD-R11	Optional remote controller

1. Start/End

1-1. Start

When the test disc is inserted, the title “NN622/NN623 TEST DISC” will be displayed.

If [RETURN] key is pressed while the title is being displayed, the menu screen will be displayed. If no key is pressed, the first screen of the inspection screen for line will be displayed.

Title screen



1-2. End

No action is taken.

2. Key operation

- In the case of inspection screen for line

1. The inspection screen and the menu screen can be switched alternately using the [CR] key on the remote controller.
2. The screen will go back to the previous screen by the [↑] key on the remote controller.
3. The screen will move forward to the next screen by the [↓] key on the remote controller.
(Unless the inspection is finished, the screen will not move forward. The screen will not move forward, too, if there is an NG item.)

* Refer to the explanation of each screen for the details.

- In the case of service menu screen

1. Select an inspection item by the [↑] and [↓] keys on the remote controller, and inspection screen will appear when the [CR] key is pressed.
2. When the [RETURN] key on the remote controller is pressed, the screen will go back to the menu screen.

* Refer to the explanation of each screen for the details.

Menu screens

--- Self Test Menu ---

1. External Connection
2. Dual Illumination check
3. Touch Panel check
4. Microphone & Gain control
5. Data Communication (Short)
6. Data Communication (Open)
7. Natural Drawing & Rear View

[CR KEY] The selected menu is started.

--- Self Test Menu ---

8. VTR In check
9. FM multiplex tuner error
10. GPS Self check
11. Software version display
12. Language Flag setup mode
13. Memory all cleay
14. GPS sensitivity measurement

[CR KEY] The selected menu is started.

--- Self Test Menu ---

15. Picture RGB check
16. GPS information
17. Sound play
18. File Maintenance mode
19. Picture check
20. Device check(Design engineer only)
21. Memory all clear (for Service)

[CR KEY] The selected menu is started.

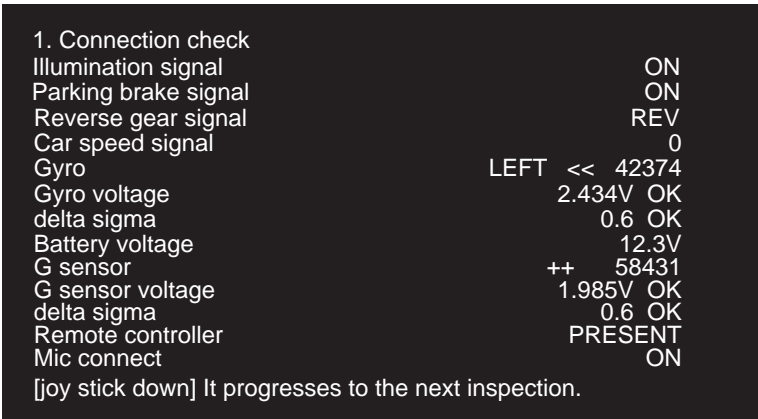
--- Self Test Menu ---

22. BackUp Memory clear
23. -----
24. -----
25. -----
26. -----
27. -----
28. -----

[CR KEY] The selected menu is started.

3. Inspection screen

1. Connection check



- The status of the item indicated in the above figure will be updated every second.
- Set ANTON port to H when starting the inspection and set to L when ending.
- When the gyro is in operation, a BEEP sound will be made when the G sensor is activated.
Right: 500Hz, Left: 700Hz. Up: 800Hz, Down: 600Hz
- Conditions for moving on to the next inspection
 - Illumination status is changing between ON and OFF.
 - Parking brake status is changing between ON and OFF.
 - Reverse status is changing between NOR and REV.
 - Pulse is changing to a value other than 0/0.
 - Mic connect status is changing between ON and OFF.
- All keys on the main body as listed below have been pressed at least once.

Standard value for other items

- GYRO voltage
 - OK: 2.5±0.15
 - USABLE: 2.5±0.30
 - GYRO variation
 - OK: Less than 30
 - G sensor voltage
 - OK: 2.5±0.15
 - USABLE: 2.5±0.30
 - G sensor variation
 - OK: Less than 60
- Only when all the conditions are met, you can move on to the next inspection by the [↓] key on the remote controller. It should be noted, however, that you will not be able to move on to the next inspection if there is an error (background color is red) even if the conditions are met.

<Supplemental explanation regarding error display>

Displayed message	Details of the error
Structural data error	An error when data cannot be received from A/D converter. Defective device of the A/D converter seems to be the cause. It will also happen in case the vehicle speed pulse cannot be measured. (rare)
No connection to DRAGON	An error when communication with DRAGON cannot be established. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.
Command error	Time out error for response to BIOS call. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.
Unknown error	Error due to unknown reason.

2. Dual Illumination color check

2. Dual Illumination color check

[NAVI] The color of illuminations is changed.
[joy stick down] It progresses to the next inspection.

- Color switching for dual illumination can be made.
- In the case of UC model, this inspection will not be performed, and the system will move on to the next inspection.
- Color is changed to GREEN/LED by the [NAVI] key on the remote controller.
- Move on to the next inspection by the [↓] key on the remote controller.

3. Touch Panel check

- Touch panel inspection must be performed at 16 locations.
- If the coordinate obtained by pressing the white spot is within the effective range, it will be determined as OK, and the next white spot will be displayed.
- If the coordinate obtained is outside of the effective range, it will be determined as NG.
- If all 16 locations turned out to be OK, then this test is considered to be OK.
- If coordinate cannot be obtained in approximately 5 seconds after the white spot is displayed, the inspection is determined as NG.
- Only if the inspection is OK, the inspection will move on to the next step by the [↓] key on the remote controller.

4. Microphone & Gain control check

4. Microphone & Gain control check

Gain level(0-7) 7

REC

[→] raise gain
[←] lower gain
[joy stick down] It progresses to the next inspection.

- The voice channel is inspected by recording the voice from MIC input (Lch) on a memory, playing back the recorded data and outputting from the SP.
- Recording of MIC input voice and playback of the recorded data is done at every second. ("1 second recording → 1 second playback" will be repeated during inspection.) "REC" and "PLAY" will be displayed on the screen during recording and play back, respectively.
- Voice channel
MIC voice input → ADC Lch input → ASIC voice block → Data storage (recorded on the memory)
Play back of recorded voice data → ASIC voice block → DAC Lch output → SP output
- Operation (remote controller)
[←] : MIC input gain (PROGGAIN0-2) is lowered.
[→] : MIC input gain (PROGGAIN0-2) is increased.
[NAVI] : Muting of ONSEIMUTE signal is switched between ON and OFF by a toggle switch.
[↓] : Move on to the next inspection.

5. Data Communication (Short Circuit) check (Not for service)

5. Data Communication (Short Circuit) check

Serial I/O #5(for Extension) OK
Serial I/O #7(for Debug) OK

[joy stick down] It progresses to the next inspection.

- SIO connection short is checked.
- Loop back check is performed on 5CH and 7CH.
- Wait screen is displayed until the checking is completed.
- When [RETURN] key on the remote controller is pressed while the inspection result is being displayed on the screen, inspection will be performed once again.
- Only in the case of OK, you can move on to the next inspection by the [↓] key on the remote controller.

6. Data Communication (Open Circuit) check (Not for service)

6. Data Communication (Open Circuit) check

Serial I/O #5(for Extension) OK
Serial I/O #7(for Debug) OK

[joy stick down] It progresses to the next inspection.

- SIO connection open is checked.
- Check is performed on 5CH and 7CH.
- Do not connect anything to the terminal. OK will be indicated under "open" condition.
- Wait screen is displayed until the checking is completed.
- When [RETURN] key on the remote controller is pressed while the inspection result is being displayed on the screen, inspection will be performed once again.
- Only in the case of OK, you can move on to the next inspection by the [↓] key on the remote controller.

7. Natural Drawing & Rear View



- Natural image consisting of 256 colors will be drawn on the BG screen.
- ADPCM 1kHz sine wave at the sampling rate of 19kHz will be output for 30 seconds.
- Rear view image will be displayed on the right hand side of the screen.
- GUIDEON terminal will be set to H when entering the screen, and set to L when exiting the screen.
- Volume level can be changed by the [←] and [→] keys on the remote controller. (0 to 9)
[JPEG file name: ZHITO1.JPEG]
[Voice file name: A19K01KS.WAV]
- You can move on to the next inspection by the [↓] key on the remote controller.

8. VTR check

8. VTR check

[joy stick down] It progresses to the next inspection.

- External input image (VTR input image) is displayed and voice is outputted.
- You can move on to the next inspection by the [↓] key on the remote controller.

9. FM multiplex tuner error rate measurement

9. FM multiplex tuner error rate measurement

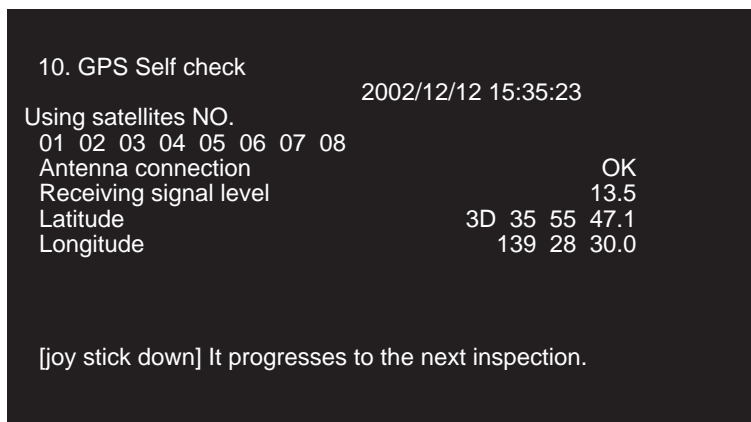
Push Back key to go to re-check.

FM Frequency	87.50
Frequency to check	87.50
Blocks Received Correctly	0500
Blocks with one bit corrected	0000
Blocks with two bits corrected	0000
Blocks Received with error	0000

[<- -> to adjust FM frequency]
[joy stick down] It progresses to the next inspection.

- FM multiplexing error is measured.
- In the case of UC model, this inspection is not performed and the system will move on to the next inspection.
- Default frequency is 87.5MHz.
- When entering this mode for the first time, the result of measurement at the time of test disc boot up will be displayed.
- After the measurement is taken, the frequency can be changed by the [←] and [→] keys.
- 500 blocks will be measured, and if there are 450 or more blocks without error, then it will be determined as OK.
- Only in the case of OK, you can move on to the next inspection by the [↓] key on the remote controller.

10. GPS Self check



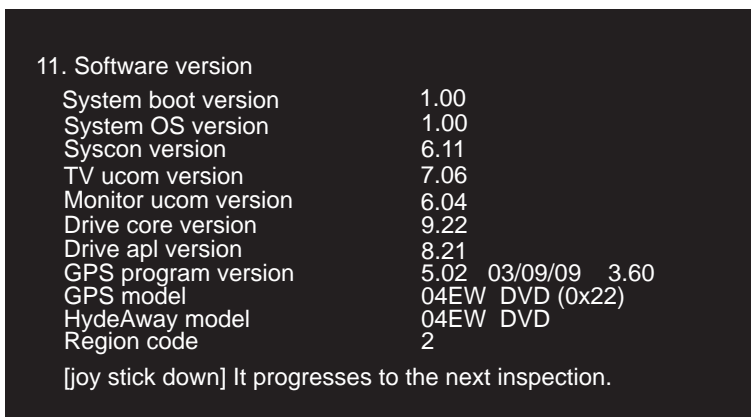
- GPS receiving status will be displayed.
- Conditions to move on to the next inspection.
 - Antenna connection is OK.
 - Data is received from one or more satellite.
 - Time is being displayed.
- When all the conditions are met, the background color will change to blue.
- Only when all the conditions are met, you can move on to the next inspection by the [↓] key on the remote controller.

It should be noted, however, that you will not be able to move on to the next inspection if there is an error (background color is red) even if the conditions are met.

<Supplemental explanation regarding error display>

Displayed message	Details of the error
No connection to DRAGON	This is an error when communication with DRAGON is not established. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.
Command error	Time out error for response to BIOS call. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.
Invalid data	This is an error when request is made while the data for response is not prepared (not obtained from DRAGON). Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.

11. Software version



- It indicates the version information of the software.
- As for the "GPS model", it will be considered OK if either "04EW DVD" or "04UC DVD" is displayed.
- As for the "Hide away model", it will be considered OK if either "04EW DVD" or "04UC DVD" is displayed.
- As for the region code, it will be considered OK if "2" is displayed in the case of EW model and if "1" is displayed for UC model.
- When "GPS model", "Hide away model" and "region code" are all OK, you can move on to the next inspection by the [↓] key on the remote controller.

12. Language selection flag initialize

12. Language selection flag initialize

Language selection flag is initialize.

[joy stick down] It progresses to the next inspection.

- When the system enters into this inspection, language selection will be set to the original setting made at the time of shipment (i.e. no setting).
 - * The setting is made to display the screen for selecting the language to be used at the initial boot up after the shipment out of the factory.
- The setting is made when the system enters into this inspection.
- You can move on to the next inspection by the [↓] key on the remote controller.

13. All memory clear (Not for service)

13. All memory clear

The clearance of SRAM (application domain)
 The clearance of FLASH (application domain)
 Elimination of a sensor study value

[NAVI] Inspection is performed.

- SRAM (application domain) is cleared.
- FLASH (application domain) is cleared.
- Sensor learning level is cleared.
- If SRAM clear is not successful, FLASH will not be cleared.
- After the inspection screen is displayed, the above process is executed by the [NAVI] key on the remote controller.
- The result of the process is displayed.
- Only when everything is OK, you can move on to the next inspection by the [↓] key on the remote controller.

14. GPS sensitivity measurement

14. GPS sensitivity measurement
 Satellite NO. 3 [← → to select satellite]

CH.	Look	SNR(AMU)	SNR(dB)
1	OK	12.3	23.4
2	OK	12.3	23.4
3	OK	12.3	23.4
4	OK	12.3	23.4
5	OK	12.3	23.4
6	OK	12.3	23.4
7	OK	12.3	23.4
8	OK	12.3	23.4
ALL	OK	Sensitivity:	20.4(db)
		DoppRMS:	1.78(Hz)

 [joy stick down] Raw work inspection is ended.

- GPS can be changed by the [←] and [→] keys on the remote controller.
- Sensitivity of the selected GPS is displayed by the [RETURN] key on the remote controller.
- Production engineering inspection is ended and service menu is displayed by the [↓] key on the remote controller.

<Supplemental explanation regarding error display>

Displayed message	Details of the error
No connection to DRAGON	This is an error when communication with DRAGON is not established. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.
Command error	Time out error for response to BIOS call. Communication error due to a hardware problem could be the cause. It is highly possible that the hardware on the DRAGON side is defective.

15. Picture RGB check



- RGB bridge is inspected.
- The screen can be switched by the [←] and [→] keys on the remote controller.
- RGB is drawn in the pattern of R 100% → R 50% → G 100% → G 50% → B 100% → B 50%.
- Total of 6 screens will be displayed.

16. GPS information

16. GPS information							
0D	T2	H25.5	V25.5	01/03/28 23:05:47			
SV	Azi	Ev	SNR	Flag	Acc	Doppler	SrchW
10	119	39	3.0	UY--	3	-2249	2883
26	25	60	4.9	UYC-	2	-1051	3496
18	310	25	0.0	---m	f	+0	12487
23	305	33	0.0	---m	f	+0	21812
17	317	49	0.0	---m	f	+0	21812
9	196	56	0.0	---m	f	+0	21812
14	260	73	0.0	---m	f	+0	5994
4	142	81	0.0	---m	3	+0	5994
Position Sv Stat Ver & Diag Err Info							

- "Position information" will be displayed when the cursor is at the "Position" position and the [CR] key is pressed on the remote controller.
- "Status information" will be displayed when the cursor is at the "Sv Stat" position and the [CR] key is pressed on the remote controller.
- "Diagnosis information" will be displayed when the cursor is at the "Ver&Diag" position and the [CR] key is pressed on the remote controller.
- "Error information" will be displayed when the cursor is at the "Err Info" position and the [CR] key is pressed on the remote controller.
- When an inspection is performed, "status information" (the screen shown above) will be displayed first.

17. Sound play

17. Sound play	
ADPCM fixation 11K 1K L	
ADPCM fixation 11K 1K mono	
ADPCM fixation 11K 1K R	
ADPCM fixation 11K 1K ste	
ADPCM fixation 19K 1K L	
ADPCM fixation 19K 1K mono	
ADPCM fixation 19K 1K R	
Main fader Vol.[0-15]	6
[-> Vol up, <- Vol down]	
[return] It returns to a menu screen.	

- Voice file (WAVE format) will be played back.
- The voice selected by the [CR] key on the remote controller will be played back.
- Volume level can be changed by the [←] and [→] keys on the remote controller.

18. File maintenance

```

18. File maintenance
Totale Capacity : 216.5K Remain : 216.3K
Media:SRAM: Path:
  LOGININFO.CFG 20      84 02 / 08 / 07 17:35
  LOCPOS .DAT 20       68 01 / 01 / 01 21:22
  
```

[1]Media [2]Copy [3>Delete [4]Dump [0]Help

- File can be copied, deleted or dumped.
Refer to HELP for “how to use” each function.

19. Picture check MENU

19. Picture check MENU 1/2

1. Plane
2. Color Bar
3. Cross Hatch
4. Sweep
5. Step
6. Ramp
7. Window
8. Mono Scope
9. Vertical Resolution Column

[Push OK to make a selection]
[return] It returns to a menu screen.

A pattern is selected by the [↑] and [↓] keys and an image is displayed by the [CR] key.

1. Plain

...Display is made in the order of black, blue, red, pink, green, light blue, yellow and white by the [←] and [→] keys operation on the remote controller.

2. Color bar

...White, yellow, light blue, green, pink, red, blue, black bars will be displayed from left to right.

3. Cross hatch

4. Sweep

5. Step

6. Lamp

7. Window

8. Mono scope

9. Cycle line 1

10. Cycle line 2

11. Horizontal stripe 1

12. Horizontal stripe 2

13. Chinese character pattern

14. Map (map.jpg)

15. Natural image (nature.jpg)

16. Portrait 1 (hito1.jpg)

17. Portrait 2 (hito2.jpg)

20. Device Check

20. Device Check

1. SDRAM (0X48000000 - 0X4BFFFFFF)
2. SRAM (0X42000000 - 0X4203FFFF)
3. ASIC (0X43000270 - 0X43000274)
4. ALL Device

[return] It returns to a menu screen.

- The above devices will be inspected for engineering purpose.
- A device is selected by the [↑] and [↓] keys on the remote controller, and cleared by the [CR] key.
- On each device screen, a pattern is selected by the [↑] and [↓] keys on the remote controller, and inspection is started by the [CR] key on the remote controller.

21. All memory clear (for Service)

21. All memory clear (for Service)

The clearance of SRAM (application domain)
The clearance of FLASH (application domain)

[NAVI] Inspection is performed.
[return] It returns to a menu screen.

- SRAM (application domain) is cleared.
- FLASH (application domain) is cleared.
- If SRAM clear is not successful, FLASH will not be cleared.
- After the inspection screen is displayed, the above process is executed by the [NAVI] key on the remote controller.
- The result of the process is displayed.

22. Initialization of a backup variable

22. Initialization of a backup variable

A backup variable is initialized.

Cautions
System reset is carried out after initialization.

[NAVI] A backup variable is initialized.
[return] It returns to a menu screen.

- Back up variables are initialized by the [NAVI] key on the remote controller for system reset.
- The screen will return to the menu screen by the [RETURN] key on the remote controller.

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 DISASSEMBLY

● Removing the Grille Assy (Fig.1)

- ➡ 1 Remove the two screws and then remove the Holder.
Disconnect the connector.
- ➡ 2 Remove the two screws and then remove the Grille Assy.

● Removing the Case

- ➡ 3 Remove the five screws.(Fig.1)
- ➡ 4 Remove the screw and then remove the Case.(Fig.1)

Note) Inside the product there is a flexible substrate that connects the Case and the Bracket.
Be very careful and do not give it a strong pull when removing the Case, otherwise it may be torn.

- ➡ 5 Remove the four screws. (Fig.2)

Disconnect the connector and then remove the Bracket. (Fig.2)
Remove the Case.(Fig.1)

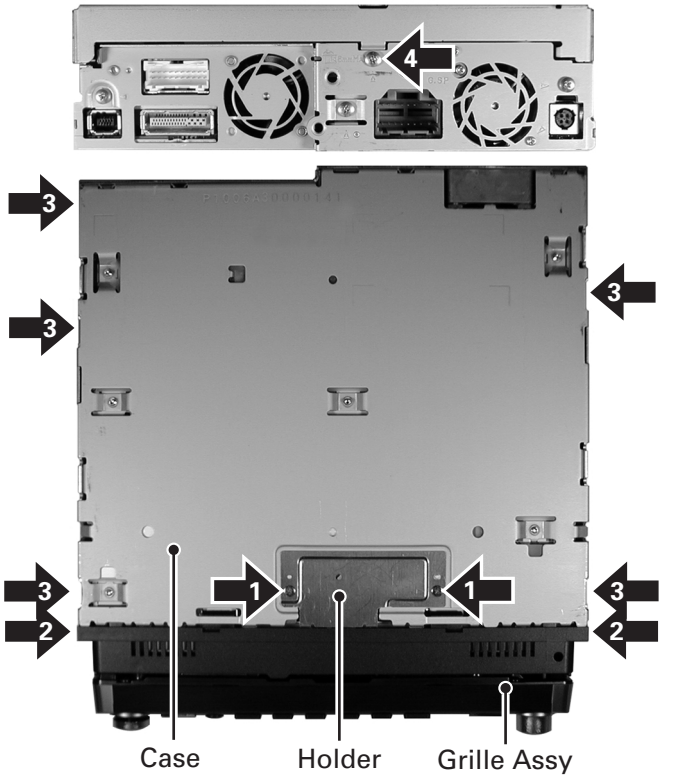


Fig.1

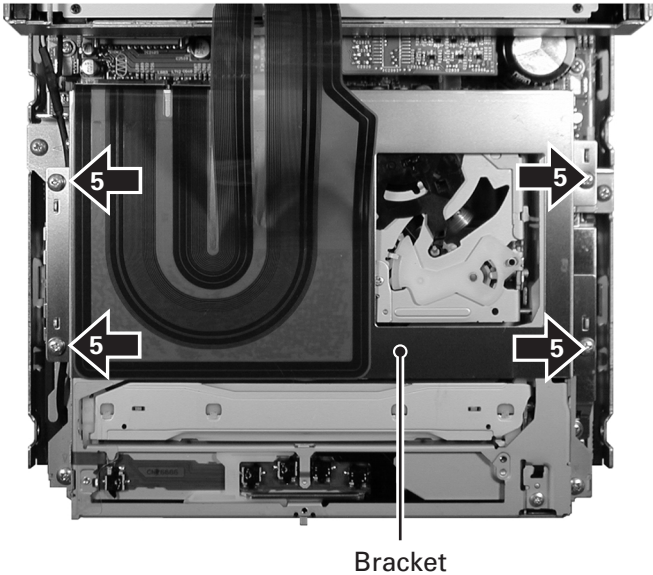


Fig.2

● Removing the DVD Mechanism Module (Fig.3)

- ➡ **1** Remove the four screws.

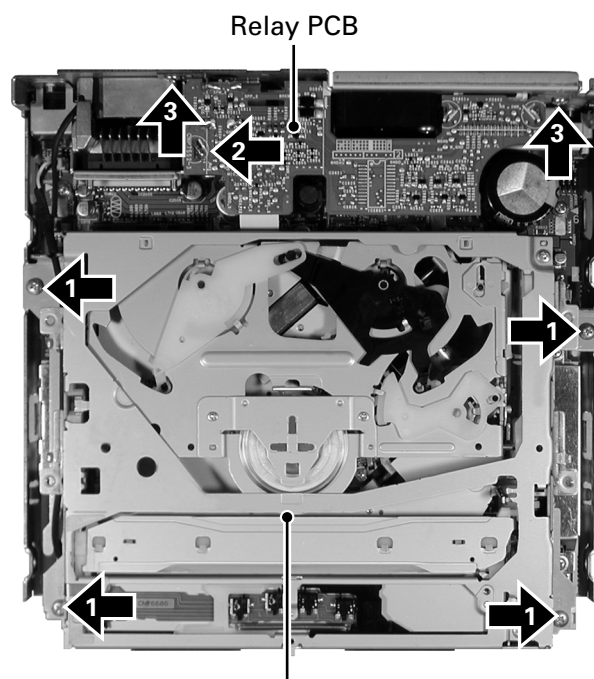
Disconnect the connector and then remove the DVD Mechanism Module.

● Removing the Relay PCB (Fig.3)

- ➡ **2** Straighten the tab at location indicated.

- ➡ **3** Remove the two screws.

Disconnect the connector and then remove the Relay PCB.

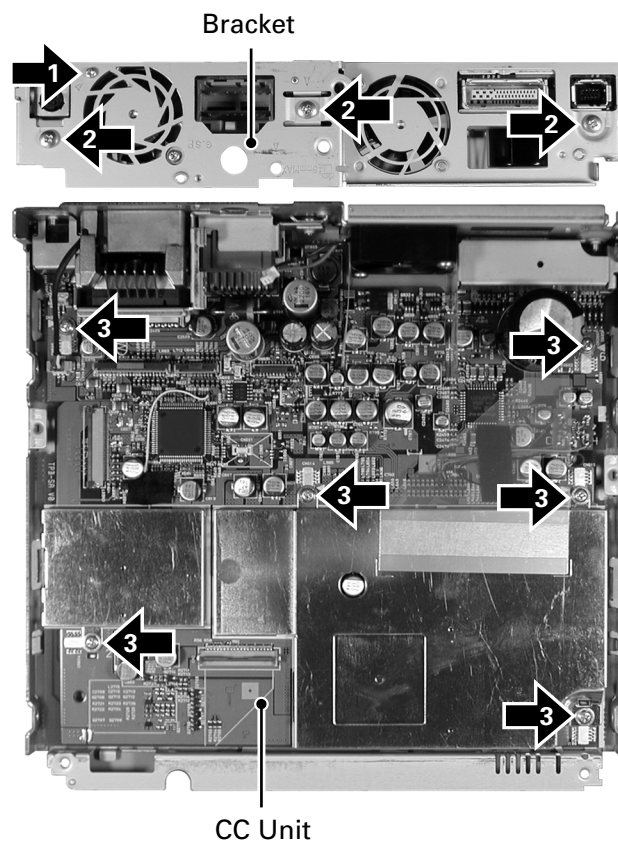


DVD Mechanism Module

Fig.3

● Removing the CC Unit (Fig.4)

- ➡ **1** Remove the screw.
- ➡ **2** Remove the three screws and then remove the Bracket.
- ➡ **3** Remove the six screws and then remove the CC Unit.



CC Unit

Fig.4

● Removing the Case (Fig.5)

- 1** Remove the two screws and then remove the Holder.
- 2** Remove the screw.
- 3** Remove the five screws and then remove the Case.

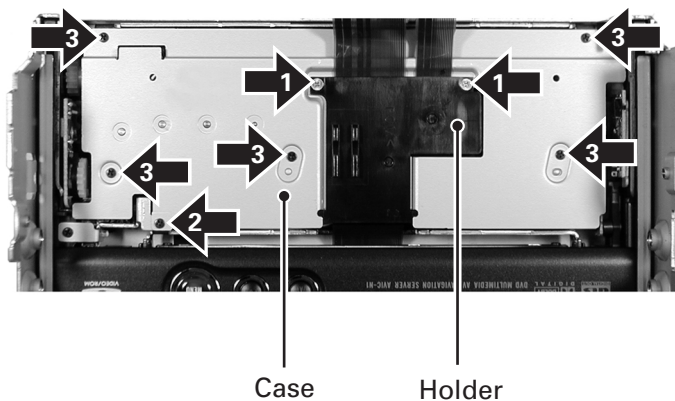


Fig.5

● Removing the Display Assy (Fig.6)

- 1** Remove the screw.
- Disconnect the connector and then remove the Motor Unit.
- 2** Remove the two screws and then remove the two Holders.
- 3** Pull out the Display Assy in the arrow indicated direction.

Note) When reassembling, hold the switch down with tweezers or the like and put the Display Assy back to the Chassis. Otherwise, the switch may be damaged and not function properly.

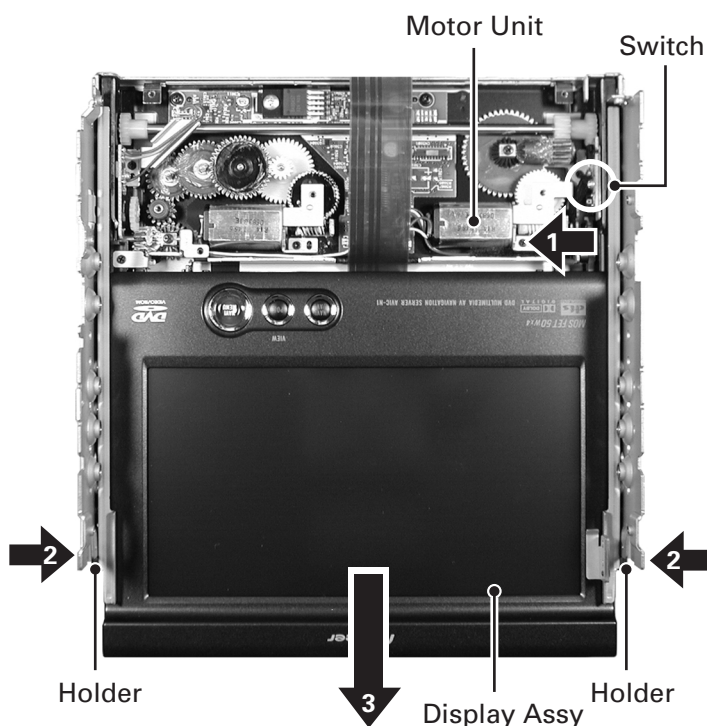


Fig.6

● Removing the Main Unit (Fig.7)

- 1** Remove the screw and then remove the Bracket.
- 2** Remove the four screws and then remove the Shaft Unit.
- 3** Remove the three screws.

Disconnect the connector and then remove the Main Unit.

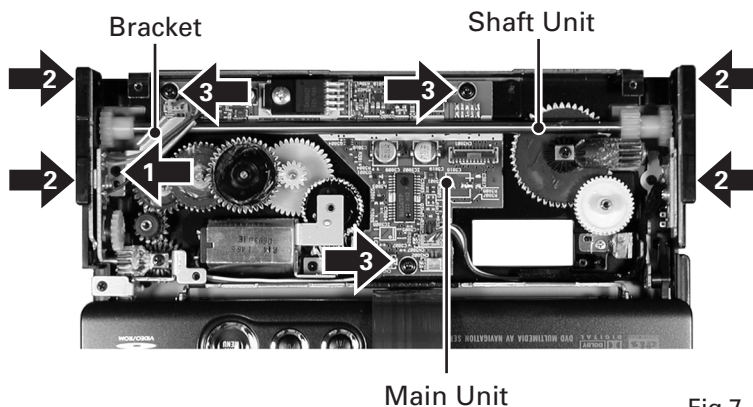


Fig.7

● Removing the Display Assy (Fig.8)

- ➡ **1** Remove the two screws and then remove the Holder.
- ➡ **2** Remove the three screws and then remove the Cover Unit.
- ➡ **3** Remove the four screws.

Disconnect the connector and then remove the Display Assy.

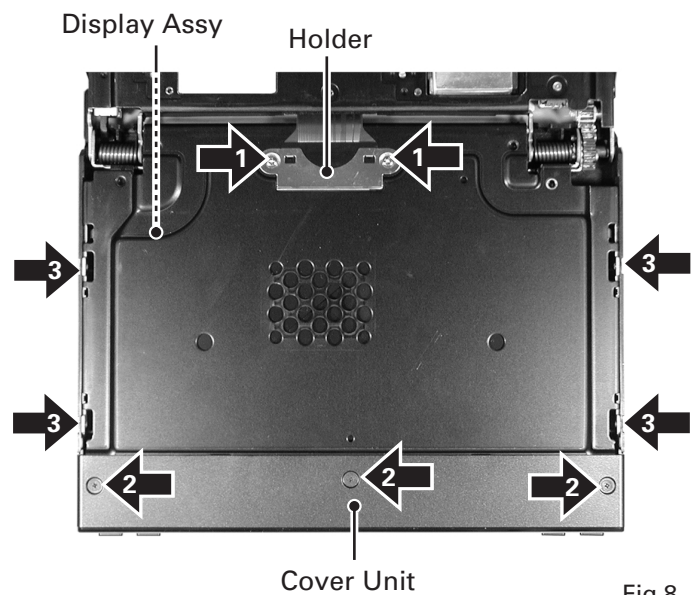


Fig.8

● Removing the Monitor PCB (Fig.9)

- ➡ **1** Straighten the tabs at two locations indicated.
- ➡ **2** Remove the screw.

Disconnect the connector and then remove the Monitor PCB.

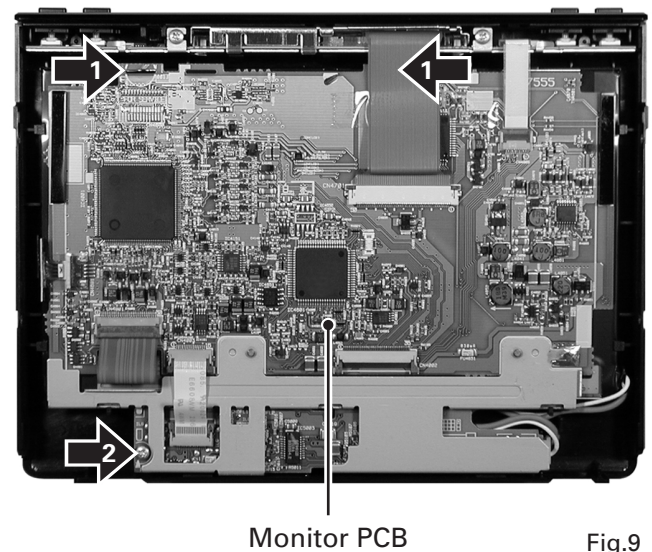


Fig.9

● Removing the Case (Fig.10)

- 1** Remove the nine screws and then remove the Case.

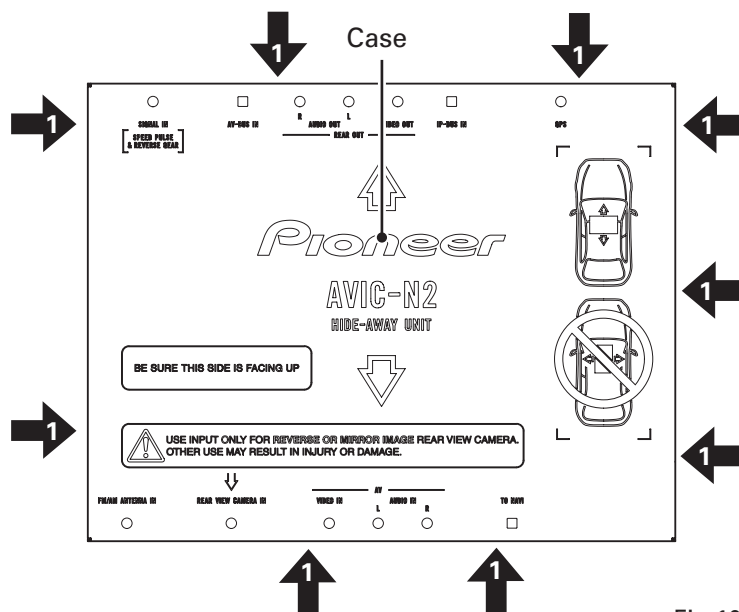
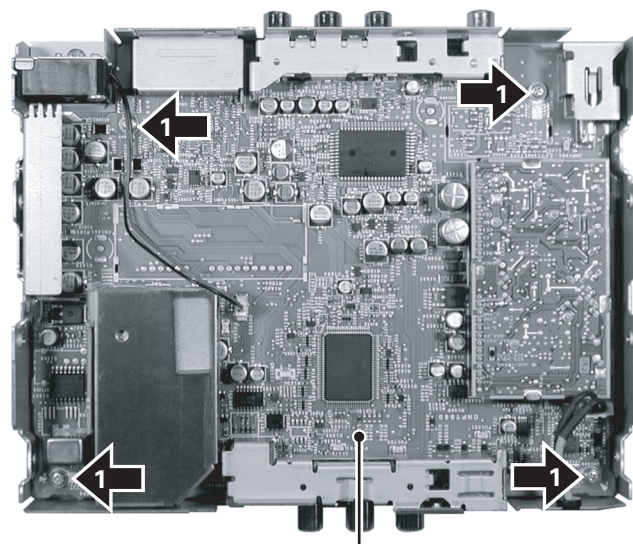


Fig.10

● Removing the Mother Tuner Unit (Fig.11)

- 1** Remove the four screws.

Disconnect the connector and then remove the Mother Tuner Unit.

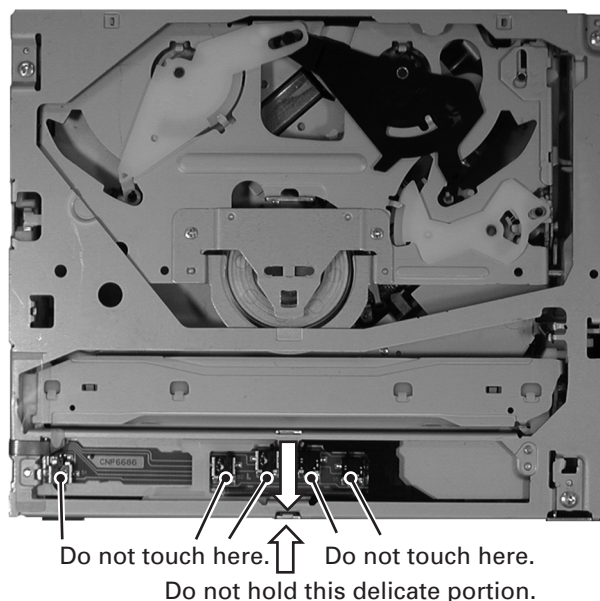


Mother Tuner Unit

Fig.11

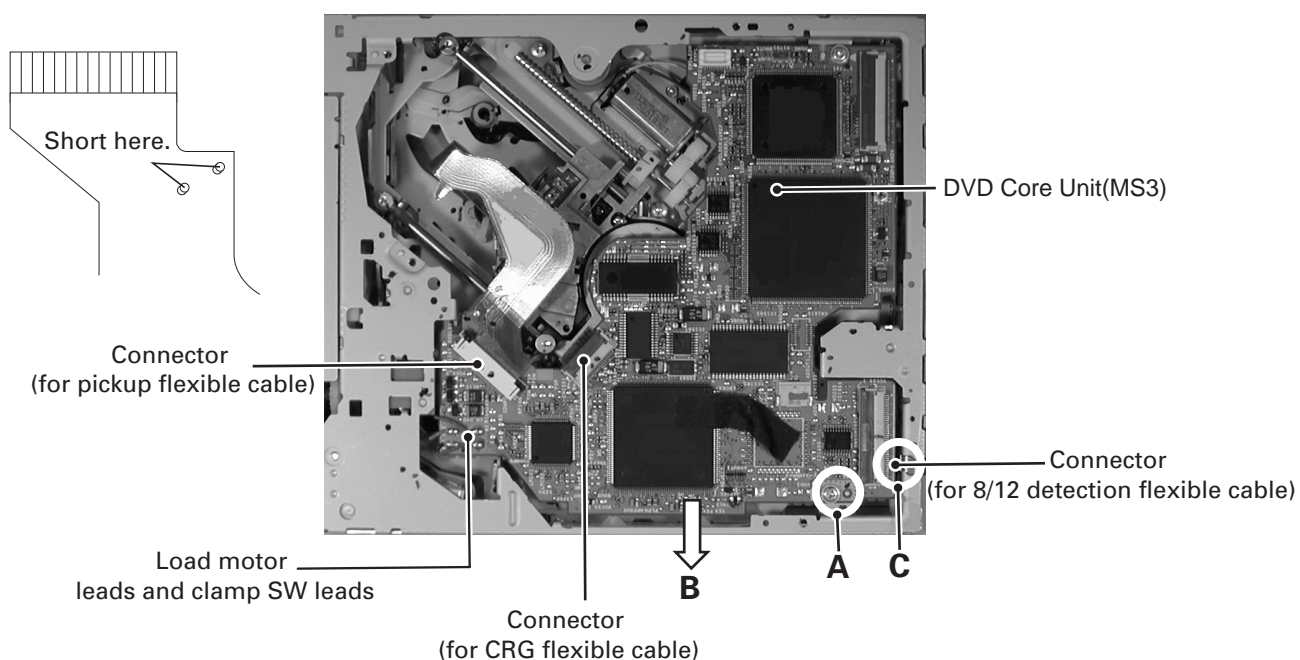
● Precautions on handling the mechanism module

1. Hold the upper and main frames.
2. Do not hold the front portion of the upper frame. It is a delicate part.
3. Do not touch the switches on the top panel.
4. Be careful not to catch the flexible cables.



● Removing the DVD Core Unit(MS3)

1. Set the mechanism to the lock position (disc load standby position).
2. Place the mechanism module upside down.
3. Short the two lands on the pickup flexible cable as shown below.
4. Be sure to disconnect the pickup flexible cable and the CRG flexible cable from the connectors to protect them from damages.
5. Remove solder from the load motor leads and clamp SW leads.
6. Loosen the two fixing screws. Lift the position A of the DVD Core Unit lightly and move it in the direction B to remove it. Be careful not to damage the flexible cable C.
7. Disconnect the 8/12 detection flexible-cable from the connector.



● Removing the Pickup Unit

1. Remove the module pc board in accordance with the procedure of "Removing the module pc board."
2. While holding the pickup case, remove the Skew screw (main).
3. Lifting the end of the pickup rack, slide the main shaft, and remove the Pickup Unit.

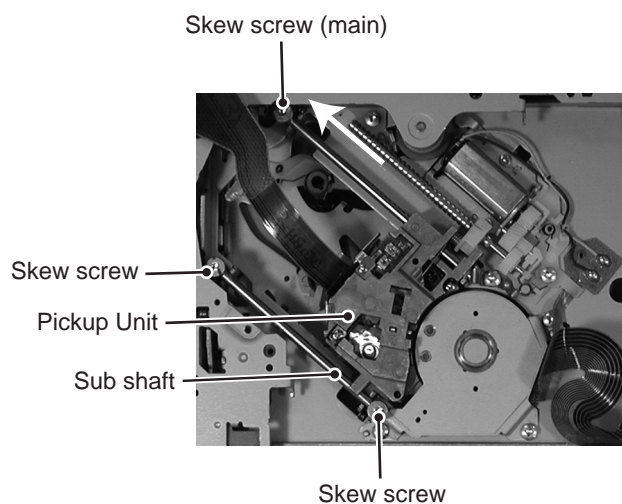
Notes:

Replacing the pickup unit requires the skew adjustment.

Remove glue from both ends of the main and sub shafts, and skew stud.

Do not reuse the old skew screw. Be sure to use a brand-new skew screw supplied with a new Pickup Unit.

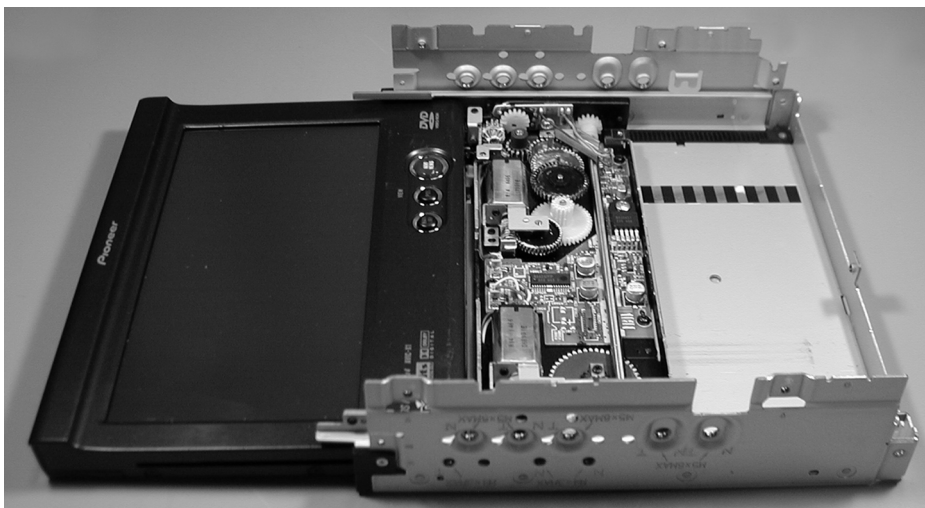
Fix the skew screw with Screw lock (GYL1001) after adjustment.



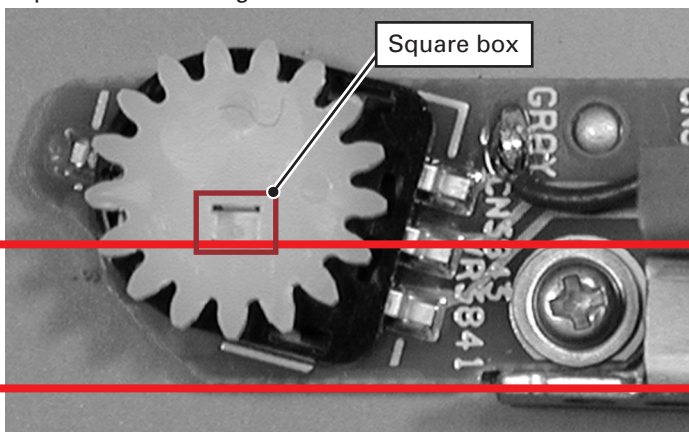
● How to install the Volume Unit fo the Drive Unit

When install the Volume Unit, adjust the positioning of the rotating angle of the gear.

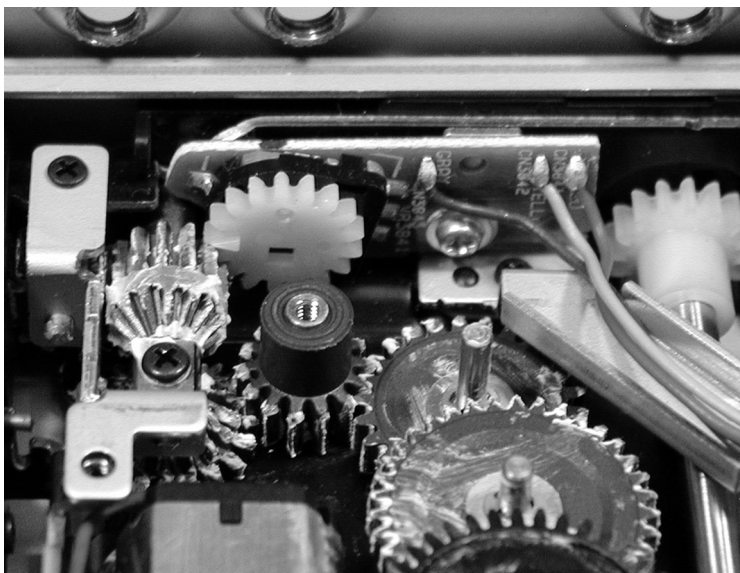
1. Set the Monitor Unit horizontally with the Main Unit of the Drive Unit.



2. When install the gear unit, rotate the gear by hand until the square box of the gear keeps in a horizontal position like the figure below.



*Gap of one teeth is acceptable.



7.1.2 PCB LOCATIONS

A

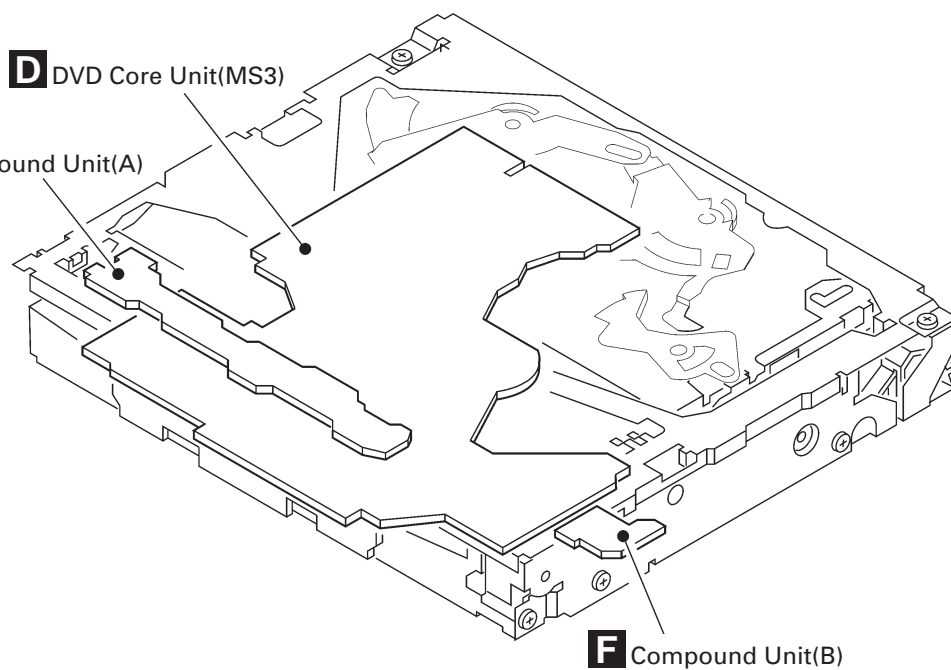
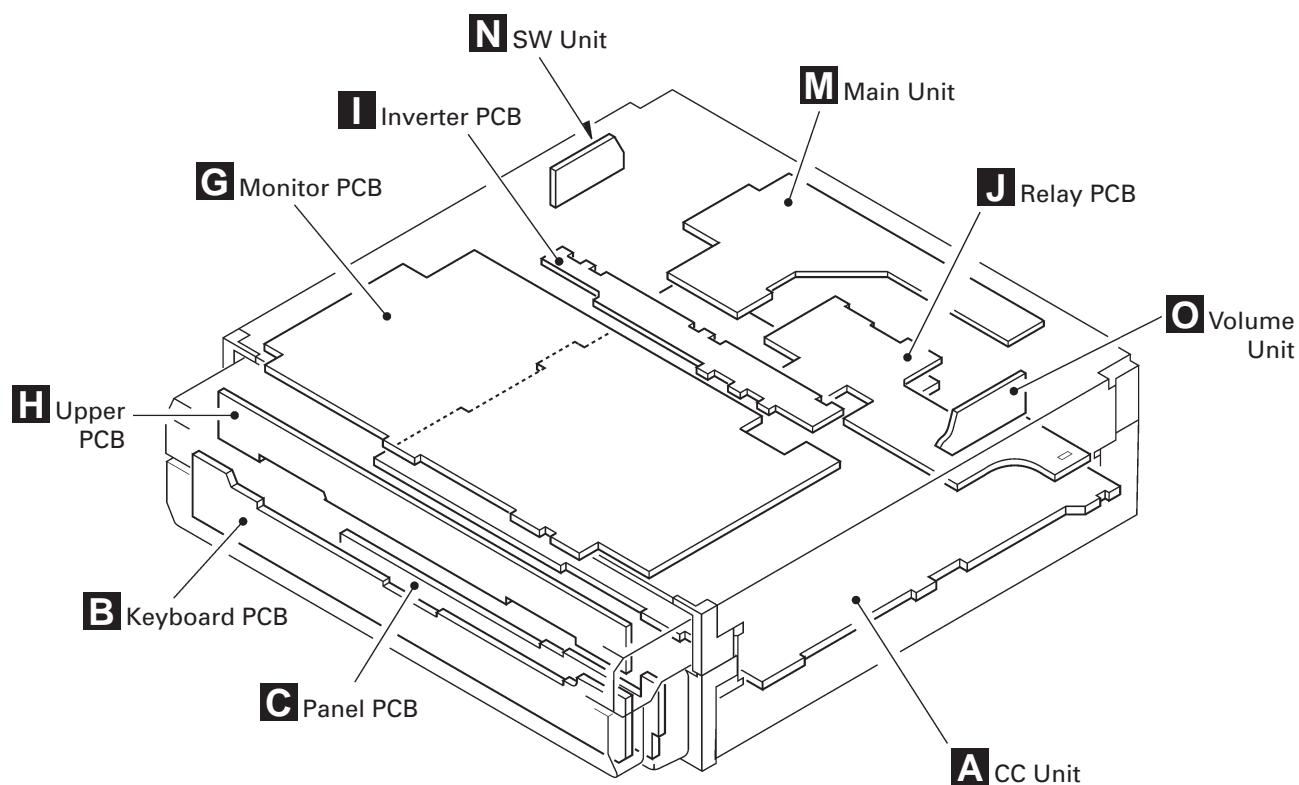
B

C

D

E

F



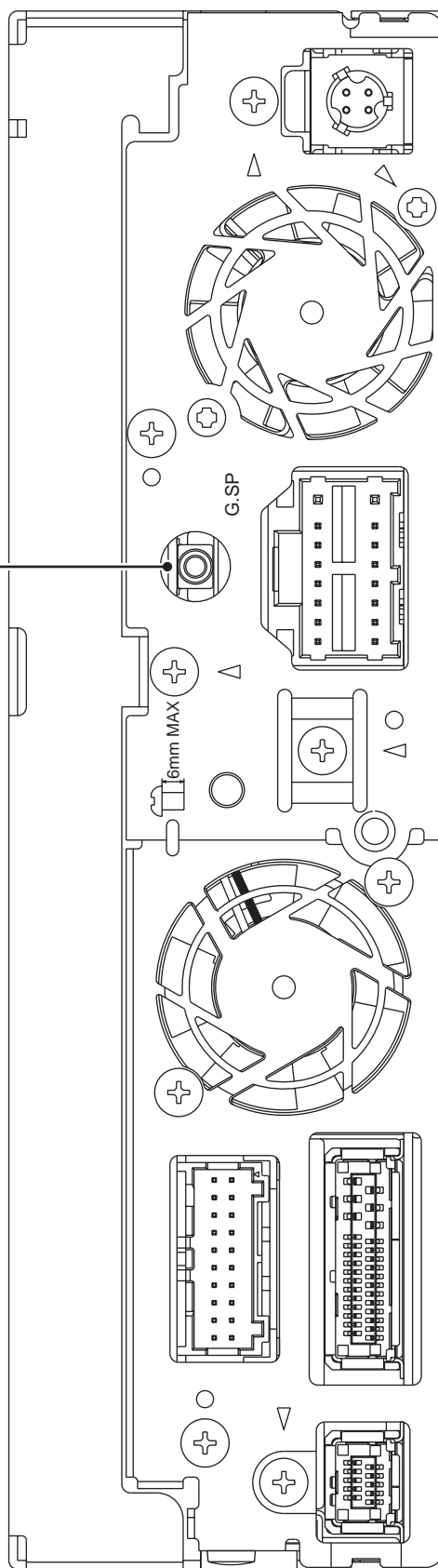
7.1.3 CONNECTOR FUNCTION DESCRIPTION

EXTENSION

20	18	16	14	12	10	8	6	4	2
19	17	15	13	11	9	7	5	3	1

- | | | |
|--------------|--------------|--------------|
| 1: PRE L | 8: RR GND | 15: WREM AN |
| 2: PRE L GND | 9: FL | 16: WREM GND |
| 3: PRE R | 10: FL GND | 17: MIC R |
| 4: PRE R GND | 11: FR | 18: GUIDEON |
| 5: RL | 12: FR GND | 19: MIC L |
| 6: RL GND | 13: BREM | 20: MIC GND |
| 7: RR | 14: WREM SEL | |

GUIDE SPEAKER OUT



TELE ATLAS / DEBUG

2	4	6	8	10
1	3	5	7	9

- | | |
|----------|-----------|
| 1: NC | 6: HYOKA |
| 2: NC | 7: CTOTA |
| 3: GNDD | 8: TATOC |
| 4: CTOEX | 9: VTA |
| 5: EXTOC | 10: TAGND |

RGB

2	4	6	8	10	12	14	16	18	20	22	24	26	28	30
1	3	5	7	9	11	13	15	17	19	21	23	25	27	29

- | | | |
|-----------|--------------------|-----------|
| 1: RETR | 11: VCK | 21: BSNS |
| 2: RETL | 12: CTOGPS | 22: REM |
| 3: ISOGND | 13: GPSTOC | 23: MTOH |
| 4: SELR | 14: RETV | 24: HTOM |
| 5: SELL | 15: VGND | 25: HTOP |
| 6: GNDISO | 16: RQ | 26: PTOH |
| 7: SELV | 17: MUTEVOL/SWACPW | 27: SWVDD |
| 8: SELVG | 18: MUTEAMP | 28: FM85 |
| 9: VST | 19: ASENBO | 29: SWBUP |
| 10: VDT | 20: RESET | 30: GNDFM |

VEHICLE I/F

1	3	5	7	9	11	13	15
2	4	6	8	10	12	14	16

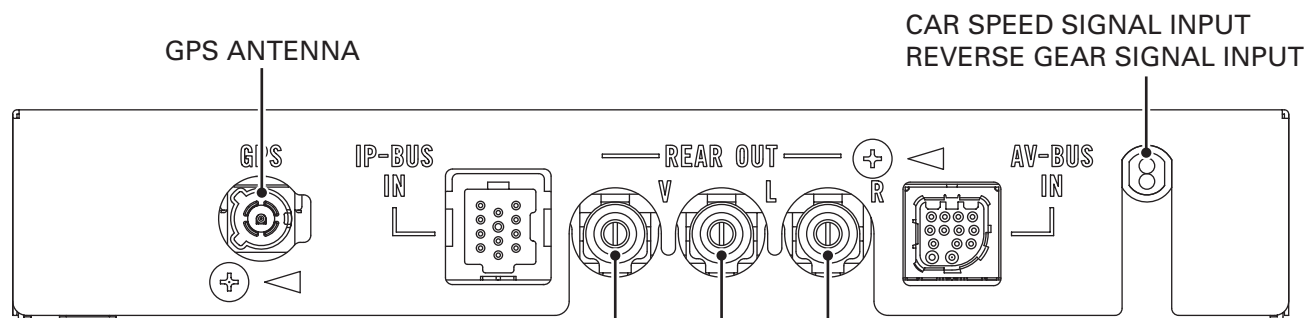
- | | |
|--------|------------|
| 1: FL- | 9: P. B. |
| 2: RL- | 10: VGND |
| 3: FL+ | 11: ACC |
| 4: RL+ | 12: A. ANT |
| 5: FR- | 13: ILM |
| 6: RR- | 14: MUTE |
| 7: FR+ | 15: B. UP |
| 8: RR+ | 16: GND |

DIGITAL OUT

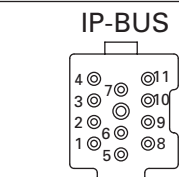
20	04
10	03

- | |
|------------|
| 1: GND |
| 2: GND |
| 3: DTEST |
| 4: DIGIOUT |

A



B



- | | |
|---------|-----------|
| 1. BUS+ | 6. BUSC |
| 2. BUSG | 7. BUSL |
| 3. LG | 8. ASEN |
| 4. NC | 9. BUSR |
| 5. BUS- | 10. BUSRG |
| | 11. BUSLG |

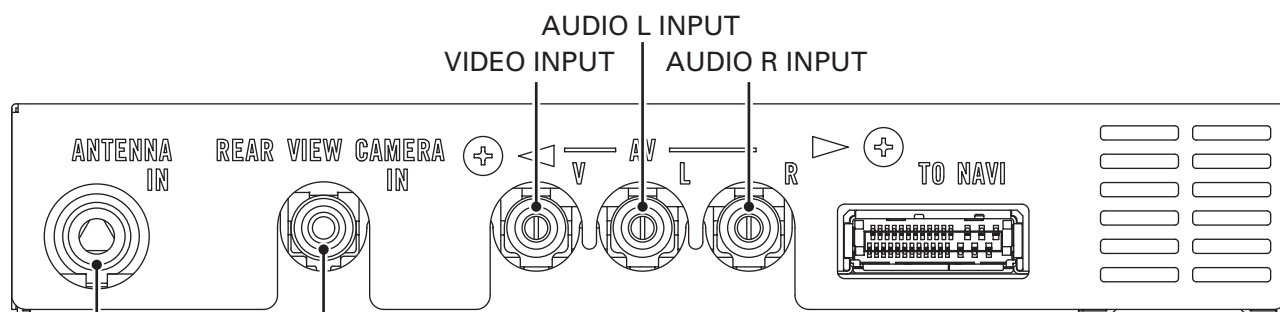
VIDEO OUTPUT AUDIO R OUTPUT
AUDIO L OUTPUT

AV-BUS



- | | |
|---------------|-----------------|
| 1. VIDEO GND | 8. BEEP MUTE |
| 2. COMP VIDEO | 9. BEEP- |
| 3. NC | 10. REMOUT |
| 4. IP-SEL1 | 11. NEW AV SENS |
| 5. IP-SEL2 | 12. AV ON |
| 6. LED-V | 13. BEEP+ |
| 7. GND | |

C

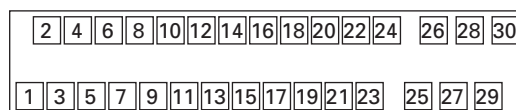


D

ANTENNA

REAR VIEW CAMERA

RGB



- | | |
|-------------|---------------------|
| 1 : RETR | 16 : RQ |
| 2 : RETL | 17 : MUTEVOL/SWACPW |
| 3 : ISOGND | 18 : MUTEAMP |
| 4 : SELR | 19 : ASENBO |
| 5 : SELL | 20 : RESET |
| 6 : GNDISO | 21 : BSSENS |
| 7 : SELV | 22 : REM |
| 8 : SELVG | 23 : MTOH |
| 9 : VST | 24 : HTOM |
| 10 : VDT | 25 : HTOP |
| 11 : VCK | 26 : PTOH |
| 12 : CTOGPS | 27 : SWVDD |
| 13 : GPSTOC | 28 : FM85 |
| 14 : RETV | 29 : SWBUP |
| 15 : VGND | 30 : GNDFM |

E

F

7.2 PARTS

7.2.1 IC

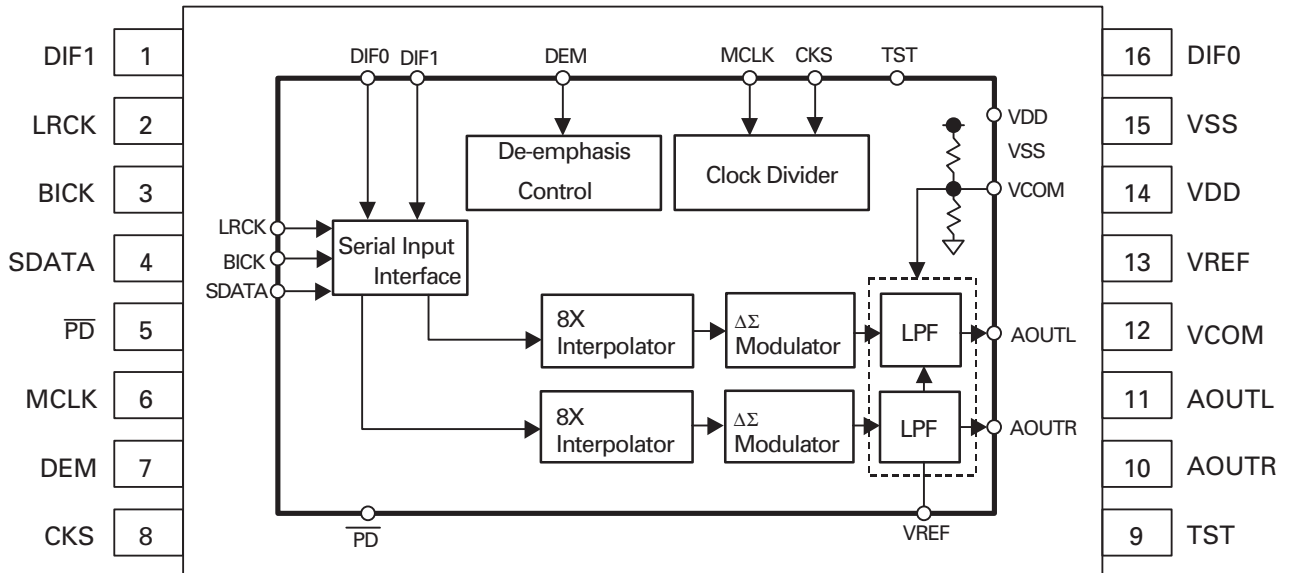
AK4351VT
AK5381VT
HY57V561620CLT-H
K4S561632E-TL75
PEH005A(UC model)
PEH003A(EW model)
PEH006A(UC model)
PEH004A(EW model)

MB86291APFVS-G-DL
S-L2980A33MC-C6S
NJM2561F1
PD6336C
PD5937A
PD3390A
LC72720YVS(EW model)

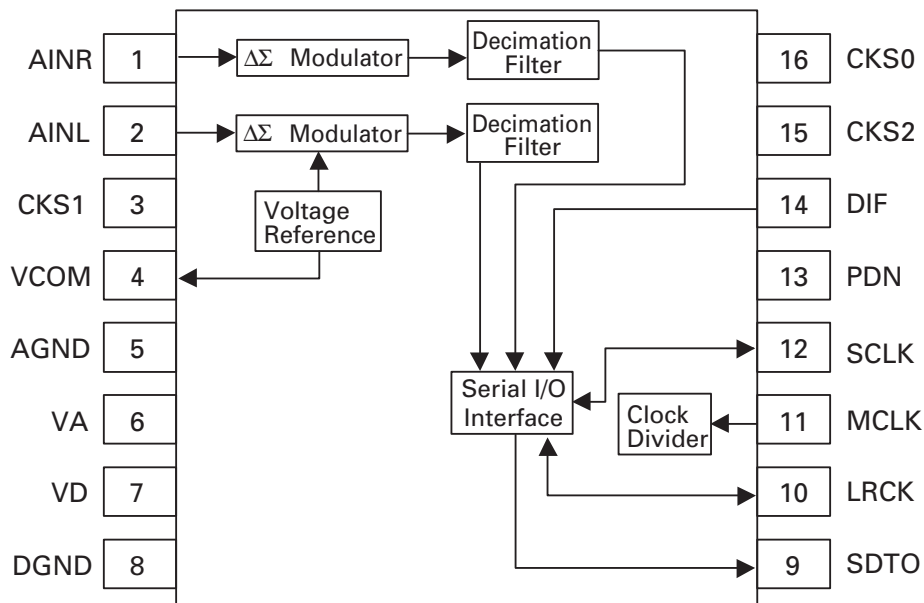
SBX3050-01
PD6473A(UC model)
PD6472A(EW model)
PD6340A
PE5413B
S-80835CNNB-B8U
SI6544DQ
TK15404AMI

S-93C46BR0I-J8T1
R1224N102H
HA12240FP
S-L2980A50MC-C7J
S-812C33AMC-C2N
PE5412B(UC model)
PE5411B(EW model)

AK4351VT



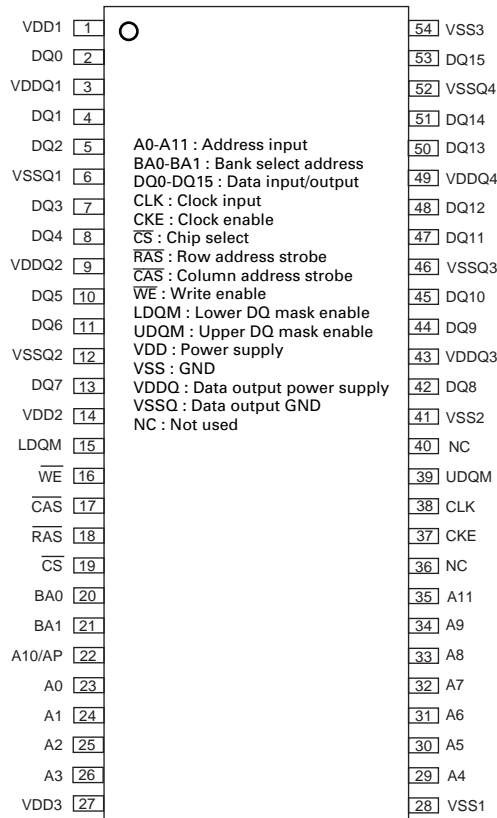
AK5381VT



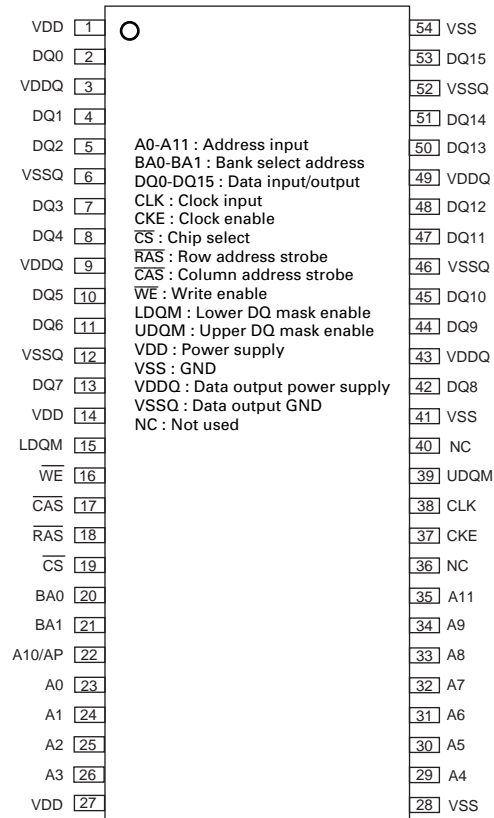
IC's marked by * are MOS type.

Be careful in handling them because they are
very liable to be damaged by electrostatic induction.

* HY57V561620CLT-H

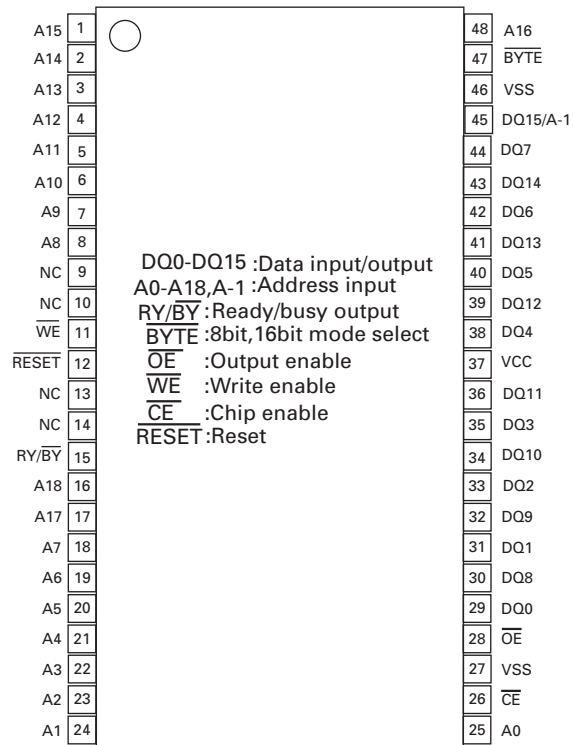


* K4S561632E-TL75



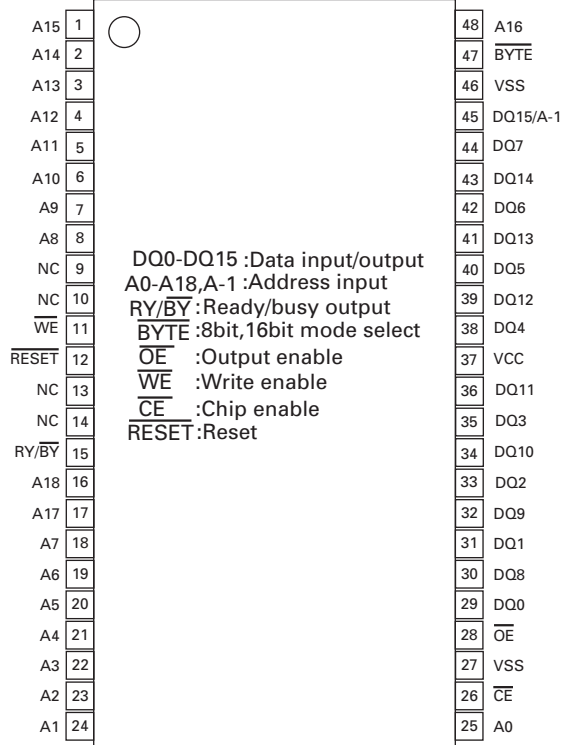
* PEH005A(UC model)

* PEH003A(EW model)

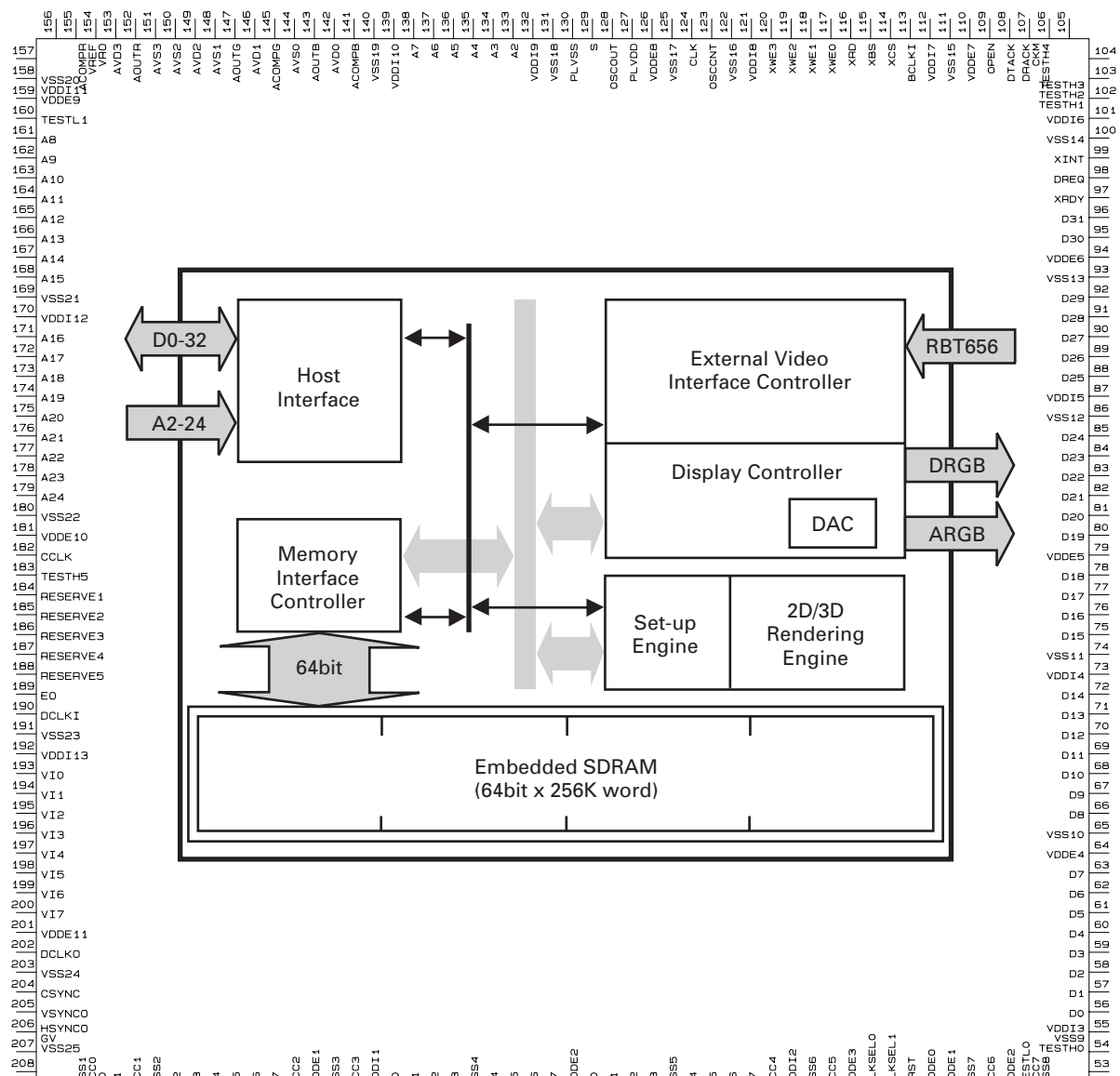


* PEH006A(UC model)

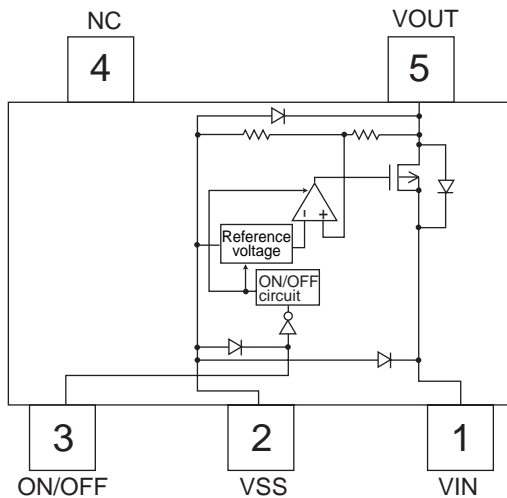
* PEH004A(EW model)



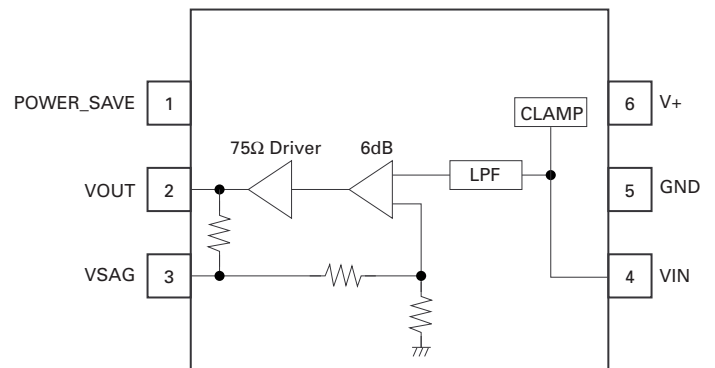
* MB86291APFVS-G-DL



* S-L2980A33MC-C6S



NJM2561F1



* PD6336C

● Pin Arrangement Chart

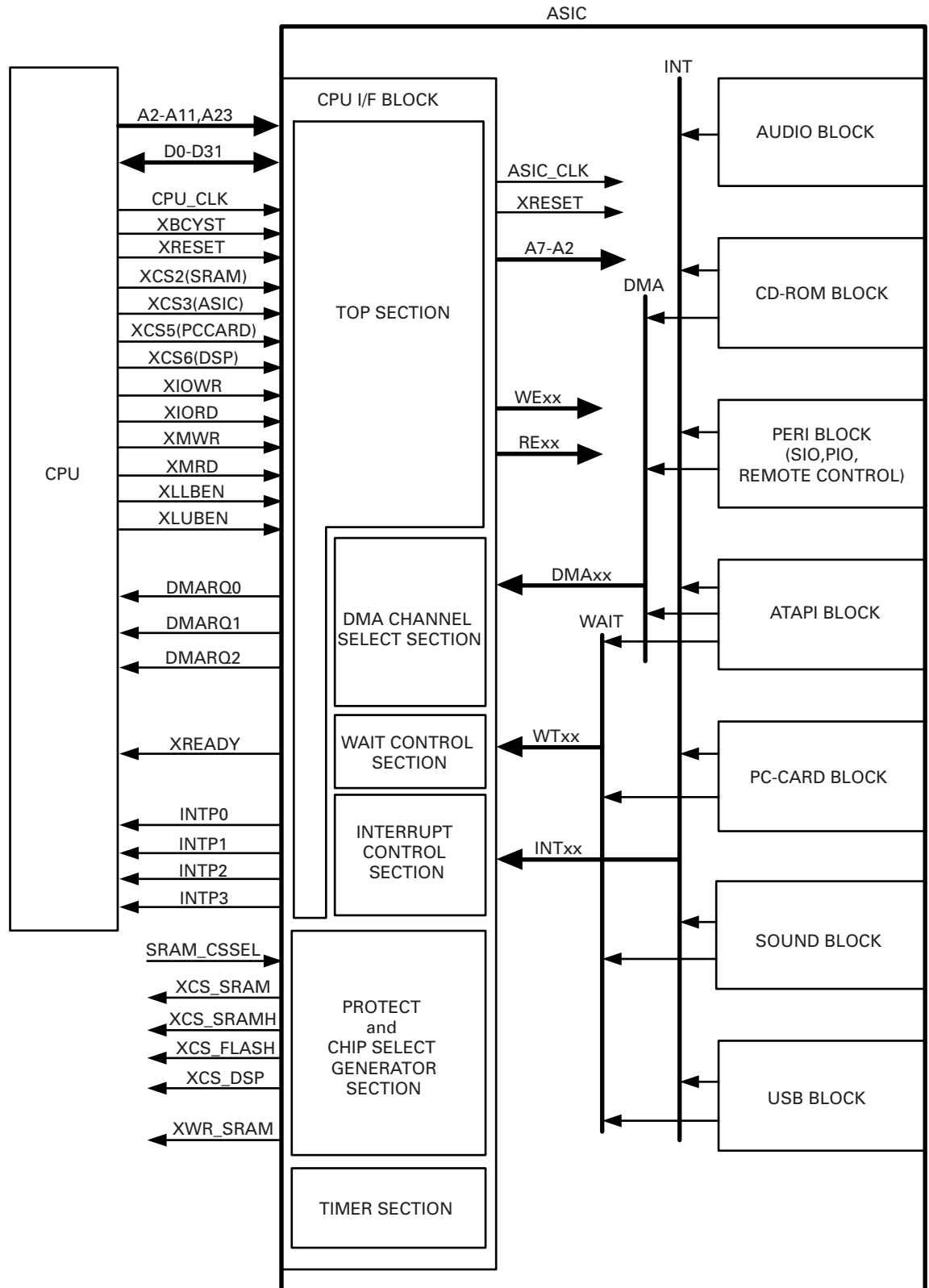
1	84	83	82	81	80	79	78	77	76	75	74	73	72	71	70	69	68	67	66	65	64
2	85	160	159	158	157	156	155	154	153	152	151	150	149	148	147	146	145	144	143	142	63
3	86	161	228	227	226	225	224	223	222	221	220	219	218	217	216	215	214	212	212	141	62
4	87	162	229	288	287	286	285	284	283	282	281	280	279	278	277	276	275	274	211	140	61
5	88	163	230															273	210	139	60
6	89	164	231															272	209	138	59
7	90	165	232															271	208	137	58
8	91	166	233															270	207	136	57
9	92	167	234															269	206	135	56
10	93	168	235															268	205	134	55
11	94	169	236															267	204	133	54
12	95	170	237															266	203	132	53
13	96	171	238															265	202	131	52
14	97	172	239															264	201	130	51
15	98	173	240															263	200	129	50
16	99	174	241															262	199	128	49
17	100	175	242															261	198	127	48
18	101	176	243	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	196	125	47
19	102	177	244	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	124	46
20	103	178	179	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	45
21	104	105	106	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
22	23	24	25																		

TOP VIEW

VSS	PIO27	DSP_BCLKI	PIO25	PIO24	PIO22	OVD23	DSP_BDI	DSP_BFSI	DSP_XHINT	DSP_HRDY	OVS56	DSP_BFSO	DSP_BCLKO	XCS_SRAMH	OVD22	DSP_XRS	DSP_ATTONT	D31	CD_MCLK	ADC_GONT2	VSS
PIO29	PIO28	PIO26	D4	D6	OVS57	D10	XCS_DSP	D14	PIO23	D18	D20	DSP_BDO	D24	PIO_OUT	OVS55	TEST1	CD_LRCLK	CD_BLK	ADC_GONT0	ADC_GONT1	ADC_DATA
USBXPWRN	XCS_FLASH	D2	D3	D5	D8	D9	D12	D13	D16	D17	D19	D22	D23	D26	D27	D29	D30	A2	A3	ADC_BCLK	ADC_LRCLK
USBXOVRCLR	D0	D1	VSS	VDD	D7	VDD	D11	VSS	D15	VDD	VDD	D21	VSS	D25	VDD	D28	VSS	VSS	A4	ADC_MCLK	TEST4
UVD1M	XMIRD	XMWR	VSS															VDD	A5	A6	EXTAL1
UVD1P	USBPMREN	XLLEN	XLUBEN															VPDP	A7	A8	OVS54
UVD2M	XIOWR	XIORD	VDD															VDD	A9	A10	XTAL1
UVD2P	NC	NC	NC															A11	A12	TEST2	TEST3
USB_CLK	NC	NC	VSS															VSS	PC_READY	DAC_MCLK	DAC_LRCLK
XCS_SRAM	XREADY	XBCYST	VDD															PC_XVS2	PC_RESET	DAC_BCLK	DAC_DATA
XWR_SRAM_SRAM_CSEL		XCS2	VDD															VDD	PC_WXT	PC_XREG	PIO21
PIO31	PIO30	XCS3	XCS5															VDD	PC_BVD1	PC_A0	OVS53
IR_RX	XCS6	DREQ0	VSS															VDD	PC_WP	PIO20	CD_DATA
TEST0	XTST	DREQ1	DREQ2															VSS	PC_XCD2	PIO19	PIO18
XTAL0	SMCK	INT3	VDD															VDD	PC_XCD1	PIO17	PIO16
MST	XSM	INT2	INT1															VDD	PC_XCE2	PIO15	PIO14
EXTAL0	GDC_WT	INT0	VDD															PC_XOE	PC_XVS1	PIO13	PIO12
UART9_TXD	UART9_RXD	ATA_DA0	VSS	VSS	ATA_XDIOR	VDD	ATA_DD1	VSS	ATA_DD5	VDD	VDD	ATA_DD10	VSS	ATA_DD14	VDD	ATA_XCS0	VDD	VSS	PC_XIOWR	PIO9	PIO8
UART8_TXD	UART8_RXD	ATA_DA1	ATA_INT	ATA_XDMACK	ATA_IORDY	ATA_DMARQ	ATA_DD0	ATA_DD3	ATA_DD4	ATA_DD7	ATA_DD8	ATA_DD9	ATA_DD12	ATA_DD13	ATA_DA2	ATA_XCS1	PC_XPWR	PC_XUBUF	PC_XWE	PIO7	PIO6
UART7_TXD	UART7_RXD	UART6_RXD	OVS50	UART4_RXD	XRESET	ATA_XDIOW	UART3_RXD	ATA_DD2	UART1_RXD	ATA_DD6	ATA_XRESET	UART_XDCD	ATA_DD11	UART_XRI	ATA_DD15	UART1_XDTR	ATA_DIR	PC_XLBUF	PIO2	PIO5	PIO4
VSS	UART6_TXD	UART5_RXD	UART5_TXD	UART4_TXD	UART3_TXD	OVD20	UART2_TXD	UART2_RXD	UART1_TXD	A23	CPU_CLK	OVS51	UART1_XCTS	UART_XDSR	OVD21	UART1_XRTS	PIO0	PIO1	OVS52	PIO3	VSS

TOP VIEW

● Block Diagram Chart

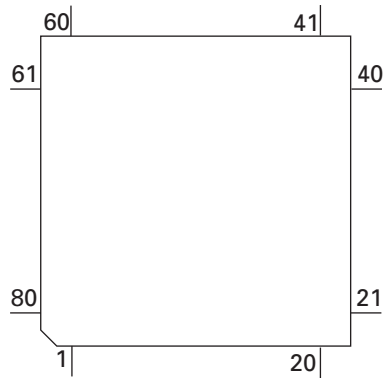


● Pin Functions(PD5937A)

Pin No.	Pin Name	I/O	Function and Operation
1	ARMSW	O	LED light output
2	NFANCNT	O	CC Unit Fan motor control output
3	AFANCNT	O	Power amplifier IC Fan motor control output
4	ILMPWR	O	Illumination ON output
5	REAON	O	Illumination color select output, when the rear monitor is ON (H : Green, L : Amber)
6	CNVSS	I	Connect to GND
7	DISC	I	Disc detect input
8	EJECT	I	Disc eject input
9	RESET	I	Reset input
10	XOUT	O	Crystal oscillator connection pin
11	GND		GND
12	XIN	I	Crystal oscillator connection pin
13	VDD		VDD
14	INT	I	Connect to VDD
15	BSENS	I	Backup sense input
16	ASENS	I	ACC sense input
17	FDSEN	I	Grille detach sense input
18	RST3	O	Navigation control reset output
19	AUPW	O	Audio power supply control output
20	DRAMPW	O	Navigation control DRAMPW output
21	BEEP	O	BEEP output
22	RXN	I	Data input from Navigation (UART)
23	TXIN	O	Data output to Navigation (UART)
24	TSO	O	Data output to Hideaway Unit (UART)
25	TSI	I	Data input from Hideaway Unit (UART)
26	TSCK	I	Test program clock input
27	BUSY		Not used
28	CCON	O	Navigation control CCON output
29	XCCSTB	I	Stand-by OK of the CC Unit input
30	CPUWDT	I	Watch dog timer input
31	IRQPW	O	Navigation control IRQPW output
32	RSTOUT	O	Navigation control RSTOUT output
33	MUTEPE		Not used
34	MUTNS	O	Mute output at the time of MIX
35	SELL	O	Navigation voice Lch MIX control output
36	SELR	O	Navigation voice Rch MIX control output
37	VFSEL	O	Front monitor source select output (H : Hideaway Unit, L : MS3)
38	VRSEL	O	Rear monitor source select output (H : Hideaway Unit, L : MS3)
39	VSEL3		Not used
40	DATA		Not used
41	CLK		Not used
42	CS		Not used
43	AMPSTB	O	Amplifier stand-by output
44	ILMSEL	O	Illumination color select output (H : Amber, L : Green)
45	ILMDIM	O	Sub display DIM power supply control output
46	DSENS	I	Detach sense input
47	ILMSENS	I	Illumination sense input
48	PBSENS	I	Parking brake sense input
49	TELIN	I	TEL mute input
50	ASENBO	O	ASENS output
51	MUTESO	O	Mute output
52	LIFTPUL	I	Lift pulse input
53	MTRS	O	Flap motor speed control output
54	MTRPW	O	Flap motor control power supply output
55	MTR1	O	Flap angle motor control signal output
56	MTR1	O	Flap position motor control signal output
57	MTRSEL	O	Flap motor control output
58	ANGLE0SW	I	Flap angle 0 sense input
59	LIFTSW	I	Lift sense input
60	SENSE5	O	Pulse power supply control output
61	ANTPW	O	Auto antenna power output
62	WCONT	I	Wired remote control SEL input
63	TESTIN	I	Test mode input
64	TIMEOUT	I	Timeout input
65-67	SIMUKE0-2	I	Model select input0-2
68	51MUTE	O	5.1 ch mute output

Pin No.	Pin Name	I/O	Function and Operation
69	NC		Not used
70	WREMIN	I	Wired remote control AD input
71	ATEMPI		Not used
72	ANGLE	I	Flap angle sense input
73	NTEMP1	I	CC Unit temperature input
74	NC		Not used
75	AVSS		A/D GND
76	NC		Not used
77	AVREF		A/D converter reference voltage
78	AVCC		A/D power supply
79	NC		Not used
80	MUTEGU	O	TELIN/GUIDE interrupt notice output

* PD5937A



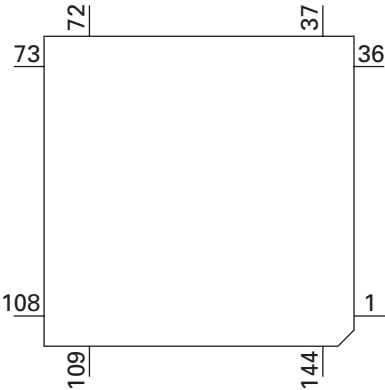
●Pin Functions(PD3390A)

Pin No.	Pin Name	I/O	Format	Function and Operation
1	VCC0			Power supply (3.3V)
2	VSS0			GND
3	TXD2	I/O		SIO2 Transmission data input / output
4	RXD2	I/O		SIO2 Reception data input / output
5	TXD1	O	C	SIO1 Transmission data output
6	RXD1	I		SIO1 Reception data input
7	TXD0	O	C	SIO0 Transmission data output
8	RXD0	I		SIO0 Reception data input
9	SPEED	I		SP I/F input
10	ADCSB	O	C	AD I/F output
11	ADSCK	O	C	AD I/F output
12	ADTXD	O	C	AD I/F output
13	ADRXD	I		AD I/F input
14	ADSRX	I		AD I/F input
15	ADIO0	I/O		AD I/F input / output
16	ADIO1	I/O		AD I/F input / output
17	ADIO2	I/O		AD I/F input / output
18	VCC1			Power supply (3.3V)
19	VSS1			GND
20	PWM	O		PWM signal output
21	PLINT	I		PLL I/F input
22	PLCE	O	C	PLL I/F output
23	PLSCK	O	C	PLL I/F output
24	PLTX	O	C	PLL I/F output
25	PLRX	I		PLL I/F input
26	PLIO0	I/O		PLL I/F input / output
27	PLIO1	I/O		PLL I/F input / output
28	PLIO2	I/O		PLL I/F input / output
29	DDINT	I		Darc I/F input
30	DDCE	O	C	Darc I/F output
31	DDSCK	O	C	Darc I/F output
32	DDTX	O	C	Darc I/F output
33	DDRFX	I		Darc I/F input
34	DDIO0	I/O		Darc I/F input / output
35	DDIO1	I/O		Darc I/F input / output
36	DDIO2	I/O		Darc I/F input / output
37	TIOA0	I/O		Parallel input / output
38	TIOA1	I/O		Parallel input / output
39	TIOB0	I/O		Parallel input / output
40	TIOB1	I/O		Parallel input / output
41	VCC2			Power supply (3.3V)
42	VSS2			GND
43-53	A19-9	I/O		Address bus input / output
54	VCC3			Power supply (3.3V)
55	VSS3			GND
56-64	A8-0	I/O		Address bus input / output
65	VCC4			Power supply (3.3V)
66	VSS4			GND
67-82	D0-15	I/O		Address bus input / output
83	VCC5			Power supply (3.3V)
84	VSS5			GND
85	WRHB	I/O		Upper data write strobe input / output
86	WRLB	I/O		Lower data write strobe input / output
87	RDB	I/O		Read data strobe input / output
88	CS2B	I/O		Chip select aria 1 for external storage input / output
89	CS0B	I/O		Chip select aria 0 for ROM input / output
90	VCC6			Power supply (3.3V)

Pin No.	Pin Name	I/O	Format	Function and Operation
91	VSS6			GND
92	TEST2			Test mode
93	CKOEB	I		CK output enable input
94	CK	O	C	CPU clock output
95	CS5B	O	C	DRAM low address strobe output
96	CS3B	O	C	DRAM column address strobe output
97	CS1B	O	C	DRAM column address upper byte strobe output
98	RTCVSS1			Power supply (3.3V)
99	SRAMB	I		Backup memory select input
100	STANBYB	I		Stand by signal input
101	RTCVSS0			GND
102	XRTCIN	I		Sub crystal oscillator input (RTC)
103	XRTCOUT	O	C	Sub crystal oscillator output (RTC)
104	RTCVCC			Power supply (3.3V)
105	PCKSEL0	I		Processor clock select input
106	PCKSEL1	I		Processor clock select input
107	CCKSEL	I		CRCK signal select input
108	CCKDIR	I/O		Carrier clock direct input / inverter amp output
109	CCKVCC			Power supply (3.3V)
110	CRCK	I		Carrier clock input
111	CCKGND			GND
112-118	PC0-6	I/O		Parallel input / output
119	NMI			Connect to VCC
120	RESETB	I		System reset input
121	MSTRSTB	I		Test reset input
122	TEST0	I		Test mode input
123	TEST1	I		Test mode input
124	REFSEL	I		GPS reference clock select input
125	REFCK	I		Reference clock input
126	VCC7			Power supply (3.3V)
127	VSS7			GND
128	XAUXIN	I		Sub crystal oscillator output input (AUX)
129	XAUXOUT	O	C	Sub crystal oscillator output (AUX)
130-133	PIN0-3	I		Parallel input
134-137	PIO4-7	I/O		Parallel input / output
138	TXD3	I/O		SI03 Transmission data input / output
139	RXD3	I/O		SI03 Reception data input / output
140	BOWWOWB	O	C	Watch dog timer output
141	IFDIR	I/O		IF direct input / IF inverter amp output
142	IFVCC			Power supply (3.3V)
143	IF	I		IF input
144	IFGND	I		IF amp GND input

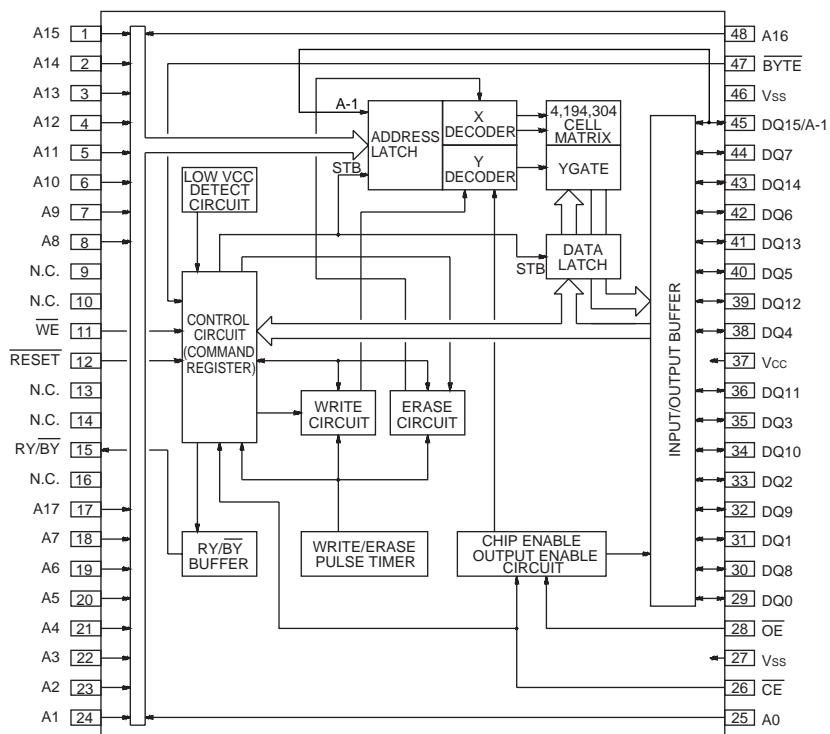
* PD3390A

Format	Meaning
C	C MOS



* PD6473A(UC model)

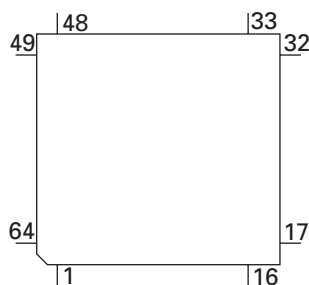
* PD6472A(EW model)



● Pin Functions (PD6340A)

Pin No.	Pin Name	I/O	Function and Operation
1-5	SEG4-0	O	LCD segment output
6-9	COM3-0	O	LCD common output
10	VLCD		LCD drive power supply
11-14	KST3-0	O	Key strobe output
15,16	KDT0,1	I	Key data input (analogue input)
17	REM	I	Remote control reception input
18	DPDT	I	Display data input
19	NC		Not used
20	KYDT	O	Key data output
21	MODA		GND
22	XO		Crystal oscillator connection pin
23	XI		Crystal oscillator connection pin
24	VSS		GND
25,26	KDT2,3	I	Key data input
27,28	KST5,4	O	Key strobe output
29-55	SEG39-13	O	LCD segment output
56	VDD		Power supply
57-64	SEG12-5	O	LCD segment output

* PD6340A

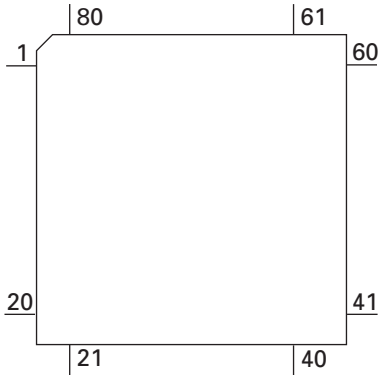


● Pin Functions(PE5413B)

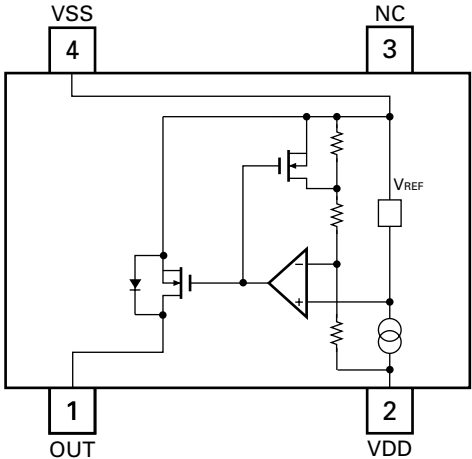
Pin No.	Pin Name	I/O	Function and Operation
1	PNLADX	I	X directions analog input
2	LSEN	I	Lens sense input
3	PNLADY	I	Y directions analog input
4	AVSS		A/D converter GND
5	DIMMER	O	Dimmer analog output
6	INVBST_DA	O	Back light boost signal output (low temperature)
7	AVREF1		D/A converter reference voltage
8	RXD	I	Data input from system microcomputer (UART)
9	TXD	O	Data output to system microcomputer (UART)
10	MFLPW	O	Back light control output
11	LKYDT	I	Data input from LCD micro computer (UART)
12	LDPDT	O	Data output to LCD micro computer (UART)
13	MVIPW	O	Picture power supply control output
14	OSDCS	O	OSD chip select output
15	NC		Not used
16	TSI	I	Test program data input
17	TSO	O	Test program data output
18	TSCK	I	Test program clock input
19	OVICLK	I	Back light power supply overcurrent detect input
20	EPRRST	I	EEPROM reset input
21	EPRTST	I	EEPROM data setup mode input
22	STEST	I	Monitor operation mode input
23	STEST2	I	Touch panel test mode input
24	PNLXV	O	Hi output is carried out when X directions is detected
25	PNLYV	O	Hi output is carried out when Y directions is detected
26	NC		Not used
27	SDA	I/O	IC data input / output
28	SCL	O	IC clock output
29	PIPRES	O	IC reset output
30	LSWVDD	O	LCD micro computer power supply control output
31,32	NC		Not used
33	VSS1		GND
34-37	NC		Not used
38	ROMDATA		Not used
39	ROMCLK		Not used
40	POMCS		Not used
41,42	NC		Not used
43	INVBST		Not used
44	INVPUL	O	Inverter pulse output
45	BEEP		Not used
46	EPRCS	O	EEPROM chip select output
47	EPRSK	O	EEPROM serial clock output
48	EPRDO	O	EEPROM serial data output
49	EPRDI	I	EEPROM serial data input
50	EPRPROT	O	EEPROM memory protect output
51	TESTIN	I	Chip test input
52	NC		Not used
53	LDIMMER		Not used
54	LBKL	O	LCD micro computer back light power supply control output
55,56	NC		Not used
57	LCDTYPE1	I	LCD panel type detect input1
58	NC		Not used
59	LCDTYPE2	I	LCD panel type detect input2
60	RESET	I	Reset input
61	REMIN	I	Remote control data input
62	VDDSENS	I	Power supply sense input
63	ROT0	I	Rotary encoder input0
64	ROT1	I	Rotary encoder input1
65	LCDLR		Not used
66	TVIND		Not used
67	VSS0		GND
68	VDD1		Power supply
69	X2		Crystal oscillator connection pin
70	X1		Crystal oscillator connection pin
71	VPP		Not used
72	XT2		Not used

Pin No.	Pin Name	I/O	Function and Operation
73	XT2		GND
74	VDD0		Power supply
75	AVDD		A/D converter power supply
76	KEY0	I	Analog key data input 0
77	KEY1	I	Analog key data input 1
78	KEY2	I	Analog key data input 2
79	NC		Not used
80	TEMPSEN	I	Temperature sense input (back light boost)

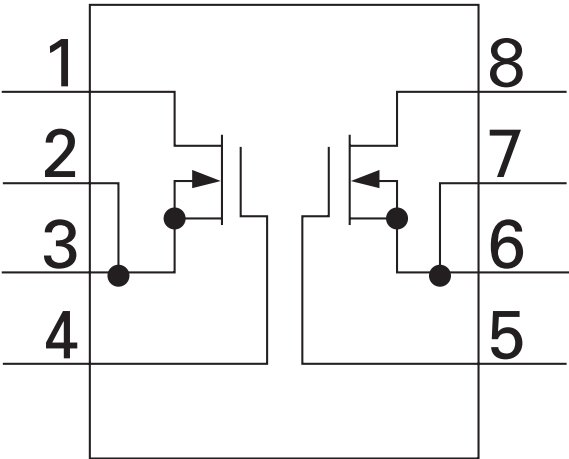
* PE5413B



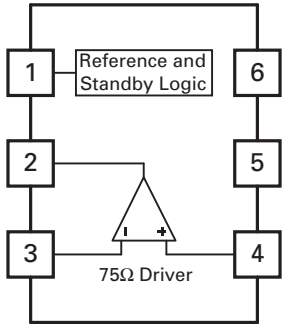
* S-80835CNNB-B8U



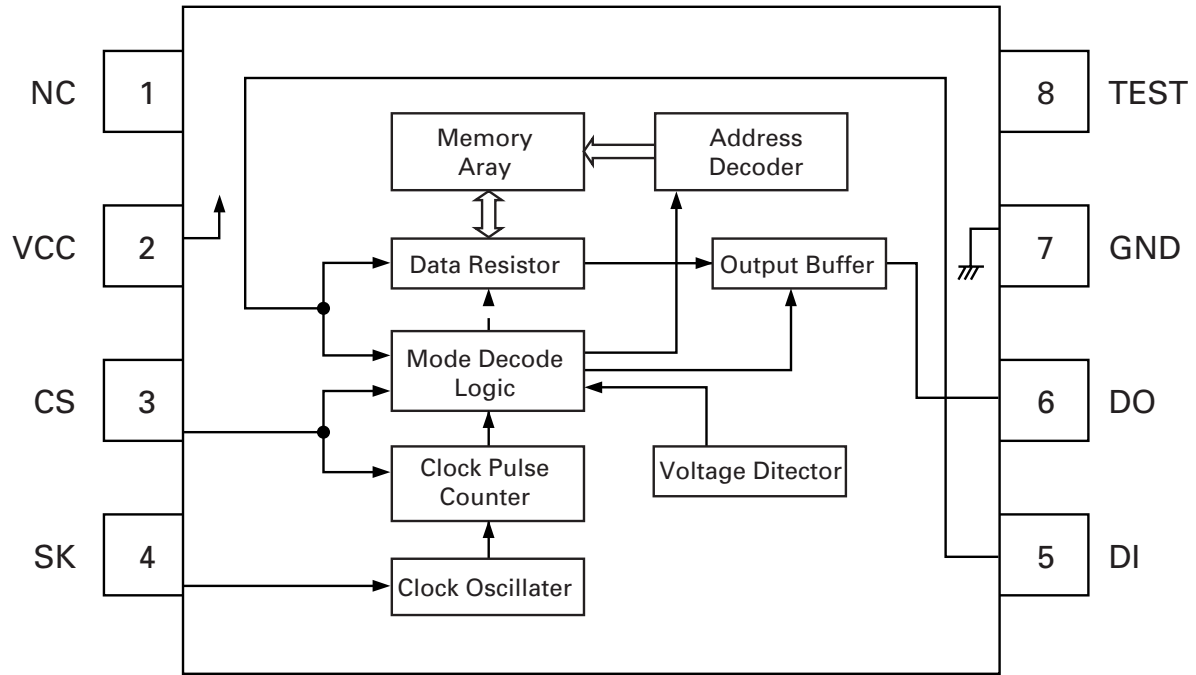
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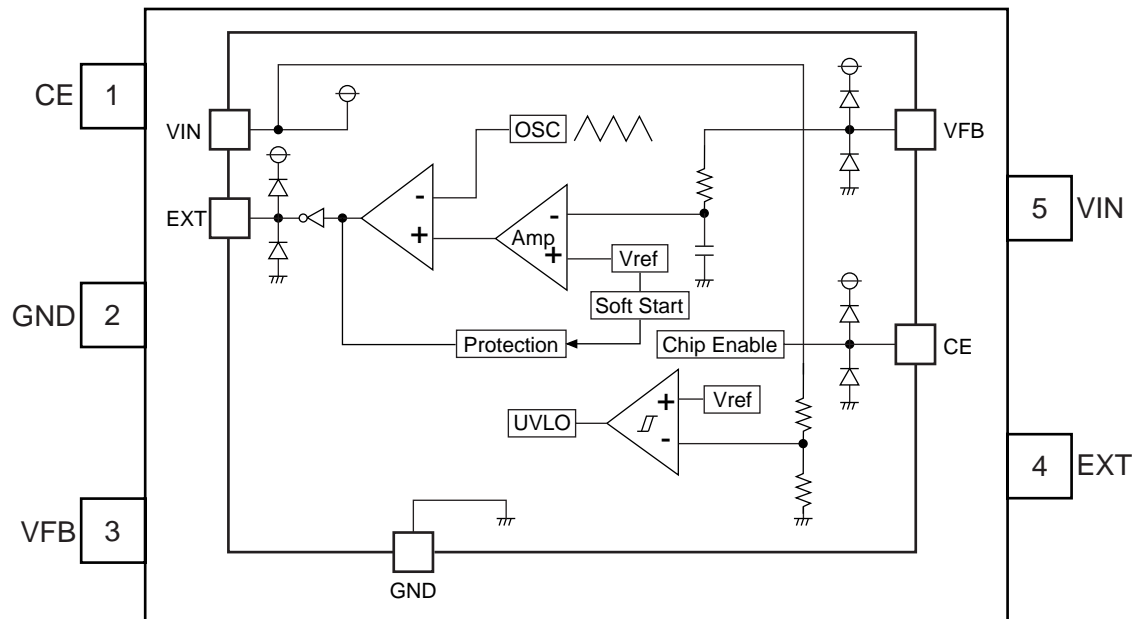
TK15404AMI



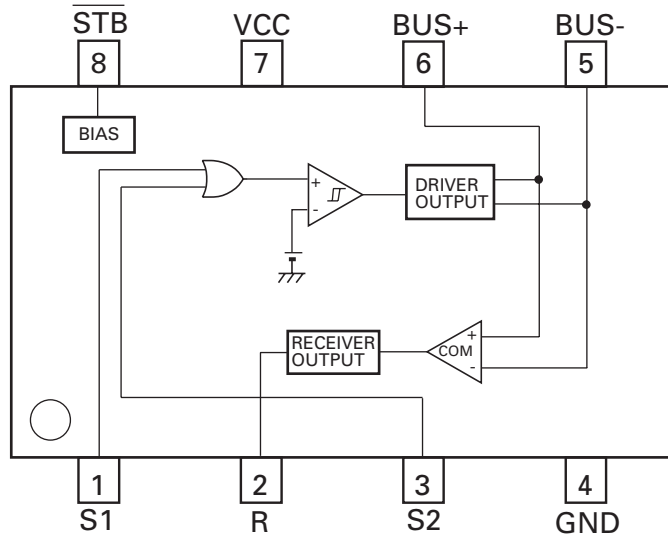
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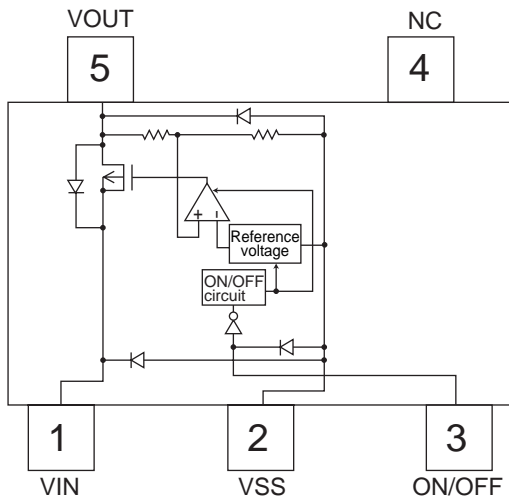
* R1224N102H



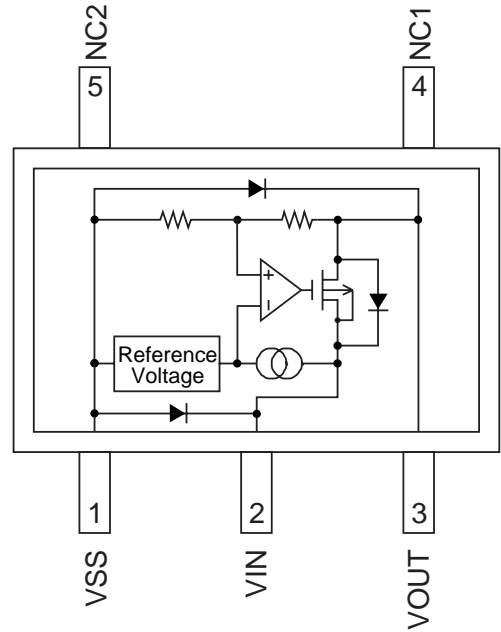
HA12240FP



* S-L2980A50MC-C7J



* S-812C33AMC-C2N



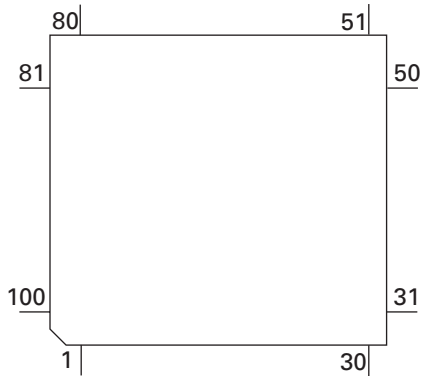
●Pin Functions(PE5412B : UC model)(PE5411B : EW model)

Pin No.	Pin Name	I/O	Function and Operation
1	HTOP	O	UART output to power supply microcomputer
2	HFANCONT		Not used
3-5	NC		Not used
6	MTOH	I	UART input from monitor microcomputer
7	HTOM	O	UART output to monitor microcomputer
8	TSCK		Not used
9	EVDD		Power supply
10	EVSS		GND
11	MUTEAMP	O	Mute output (AMP)
12	ACCPW		Not used
13	SWACPW	O	Monitor microcomputer power supply output
14	HACCPW	O	Hide away power supply ON/OFF output
15-17	NC		Not used
18	SWBUPSW		Not used
19	SWVDDSW		Not used
20	HFANON		Not used
21	VPP		VSS
22	VCK	O	E-VOL : Clock output
23	VDT	O	E-VOL : Data output
24	VST	O	E-VOL : Strobe pulse output
25	MUTEVOL	O	E-VOL : Mute output
26	RX	I	IP-BUS : Data input
27	TX	O	IP-BUS : Data output
28	IPPW	O	IP-BUS : Driver power supply control output
29	ASENBO	O	IP-BUS : Slave ACC sense output
30	NC		Not used
31	ROMDATA		Not used
32	ROMCLK		Not used
33	ROMCS		Not used
34	RESET	I	Reset input
35	XT2		Open
36	XT1		Pull up
37	REGC		Memory connection for the regulator stabilization
38	X2		Crystal oscillator connection pin
39	X1		Crystal oscillator connection pin
40	VSS		GND
41	VDD		Power supply
42	PCL		Clock output
43	NC		Not used
44	REVSNS	I	Reverse signal sense input
45,46	STEST1,2	I	Single operation mode input1,2
47,48	SIMUKE1,2		Not used
49	TESTIN	I	Test mode input
50	NC		Not used
51,52	VSELIN1,2	I	VSEL input1,2
53	AVONIN	I	AV-BUS : AV ON input
54-57	NC		Not used
58	BVDD		Power supply
59	BVSS		GND
60	RECIVE		Not used
61	RDSHLK	I	RDS : High speed signal input (EW model)
62	RDSLK	I	RDS : Signal input (EW model)
63	RDT	I	RDS : Data input (EW model)
64	NC		Not used
65,66	TUNCE1,2	O	PLL chip enable output1,2
67	NC		Not used
68	HMUTEA	O	Rear voice mute output
69	HMUTEV	O	Rear picture driver stand-by output
70	NC		Not used
71	SCL	I/O	IIC-BUS : Clock input/output
72	SDA	I/O	IIC-BUS : Data input/output
73	AVSELMUTE		Not used
74	AVDD		VDD
75	AVSS		VSS
76	AVREF		Not used
77	TUNSL	I	FM/AM tuner : Signal level analog input

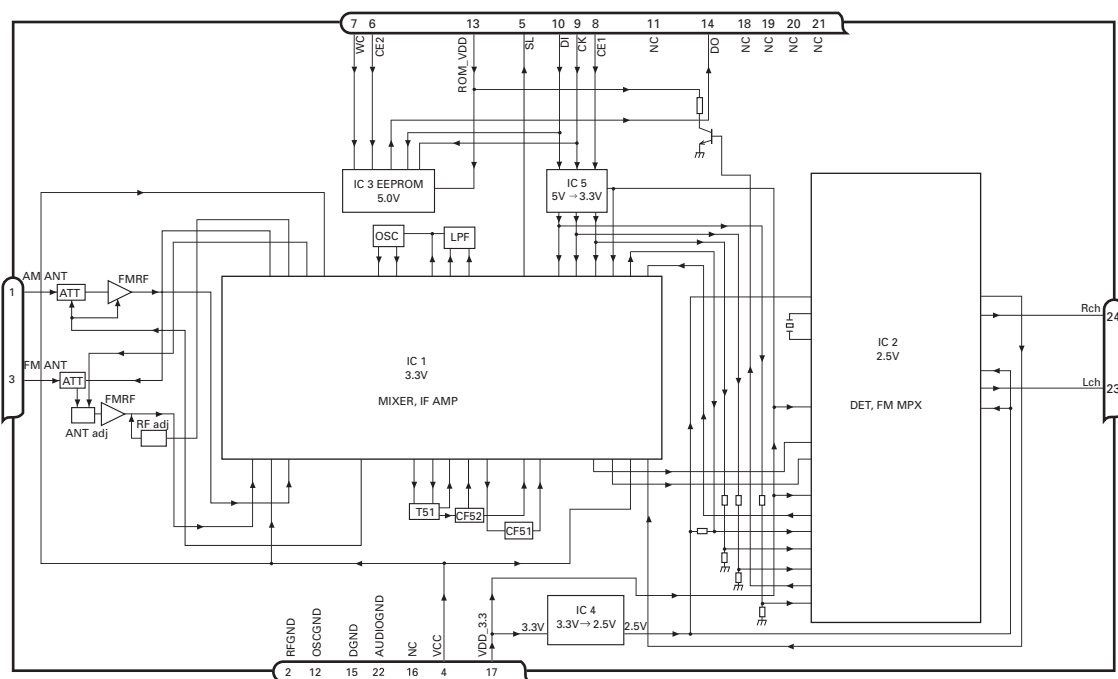
Pin No.	Pin Name	I/O	Function and Operation
78	TEMP		Not used
79-89	NC		Not used
90	BSENS	I	Backup sense input
91	ASENS	I	ACC sense input
92	TUNLDET	I	Tuner : PLL lock detect input (EW model)
93	RDSCK	I	RDS : Data clock input (EW model)
94-96	NC		Not used
97	TUNPDI	I	FM/AM tuner : PLL data input
98	TUNPDO	O	FM/AM tuner : PLL data output
99	TUNCK	O	PLL clock output
100	PTOH	I	UART input from power supply microcomputer

* PE5412B(UC model)

* PE5411B(EW model)

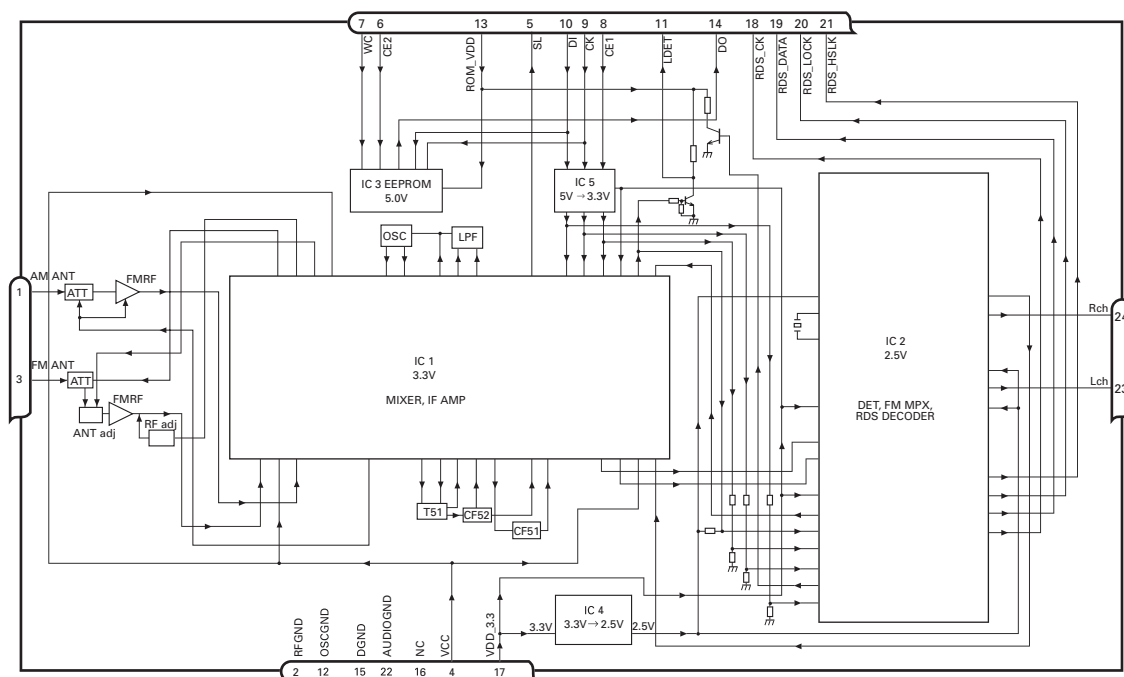


● FM/AM Tuner Unit (AVIC-N2/XU/UC)



No.	Symbol	I/O	Explain	
1	AMANT	I	AM antenna input	AM antenna input high impedance AMANT pin is connected with an all antenna by way of 4.7μH. (LAU type inductor) A series circuit including an inductor and a resistor is connected with RF ground for the countermeasure against the hum of power transmission line.
2	RFGND		RF ground	Ground of antenna block
3	FMANT	I	FM antenna input	Input of FM antenna 75Ω Surge absorber(DSP-201M-S00B) is necessary.
4	VCC		power supply	The power supply for analog block. D.C 8.4V ± 0.3V
5	SL	O	signal level	Output of FM/AM signals level
6	CE2	I	chip enable-2	Chip enable for EEPROM "Low" active
7	WC	I	write control	You can write EEPROM, when EEPROM write control is "Low". Ordinary non connection
8	CE1	I	chip enable-1	Chip enable for AF•RF "High" active
9	CK	I	clock	Clock
10	DI	I	data in	Data input
11	NC		non connection	Not used
12	OSCGND		osc ground	Ground of oscillator block
13	ROM_VDD		power supply	Power supply for EEPROM pin 13 is connected with a power supply of micro computer.
14	DO	O	data out	Data output
15	DGND		digital ground	Ground of digital block
16	NC		non connection	Not used
17	VDD_3.3		power supply	The power supply for digital block. 3.3V ± 0.2V
18	NC		non connection	Not used
19	NC		non connection	Not used
20	NC		non connection	Not used
21	NC		non connection	Not used
22	AUDIOGND		audio ground	Ground of audio block
23	L ch	O	L channel output	FM stereo "L-ch" signal output or AM audio output
24	R ch	O	R channel output	FM stereo "R-ch" signal output or AM audio output

● FM/AM Tuner Unit (AVIC-X1R/XU/EW)



No.	Symbol	I/O	Explain
1	AMANT	I	AM antenna input
2	RFGND		RF ground
3	FMANT	I	FM antenna input
4	VCC		power supply
5	SL	O	signal level
6	CE2	I	chip enable-2
7	WC	I	write control
8	CE1	I	chip enable-1
9	CK	I	clock
10	DI	I	data in
11	LDET	O	lock detector
12	OSCGND		osc ground
13	ROM_VDD		power supply
14	DO	O	data out
15	DGND		digital ground
16	NC		non connection
17	VDD_3.3		power supply
18	RDS CK	O	RDS clock
19	RDS DATA	O	RDS data
20	RDS LOCK	O	RDS lock
21	RDS_HSLK	O	RDS high speed lock
22	AUDIOGND		audio ground
23	L ch	O	L channel output
24	R ch	O	R channel output

7.2.2 DISPLAY

● LCD(CAW1870)

A

B

C

D

E

F

SEGMENT

NC
COM1
COM2
COM3
COM4
SEG1
SEG2
SEG3
SEG4
SEG5
SEG6
SEG7
SEG8
SEG9
SEG10
SEG11
SEG12
SEG13
SEG14
SEG15
SEG16
SEG17
SEG18
SEG19
SEG20
SEG21
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SEG24
SEG25
SEG26
SEG27
SEG28
SEG29
SEG30
SEG31
SEG32
SEG33
SEG34
SEG35
SEG36
SEG37
SEG38
SEG39
SEG40
NC

RPT
RDM

COMMON

COM1
COM2
COM3
COM4

7.3 EXPLANATION

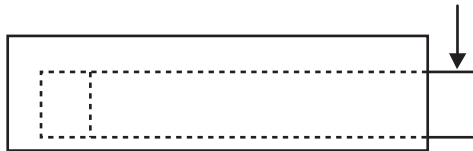
7.3.1 MECHANISM DESCRIPTIONS

● Outline of the FLAP motion

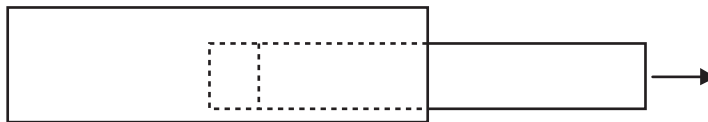
1. The motion is actuated made by two motors, the forward/backward driving motor (CXB9515) and the angle driving motor (CXB9516).
2. Analog electric potential generated by the angle encoder is detected to detect angle motion status and motion position.
3. Memory function for the angle last position is accomplished by the micro processor using the 256 resolution steps of the VDD.
4. A pulse is detected by the photo interrupter to detect the horizontal motion status.
5. In the case of reset start, the monitor will be in a stored position first, and ejection motion will take place, which puts the system in the booted up state.
6. Angle adjustment is made by the angle key (+/-).
7. OPEN/CLOSE key makes the monitor stored or ejected, and temporary folding key folds the monitor temporarily.
8. Setting of the monitor auto storage/ejection ON/OFF and set back ON/OFF at the time of ACC ON/OFF is made on the navigation menu screen.
9. A backlight is switched-off during forward/backward and storage.

● Explanation on the FLAP ejection motion

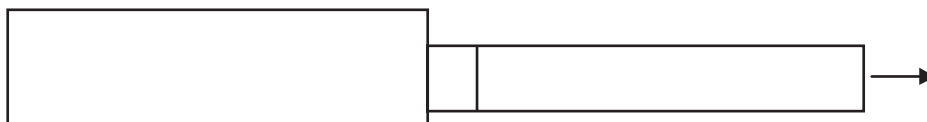
1. When the OPEN key is pressed or ACC is set to ON while the auto OPEN/CLOSE is being set to ON, angle driving motor rotates in the 0° direction for 500ms. (Pressed down.)



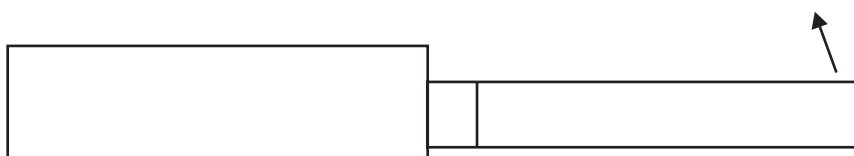
2. After 500ms, the angle driving motor is stopped, and the forward/backward driving motor rotates in the ejection direction.



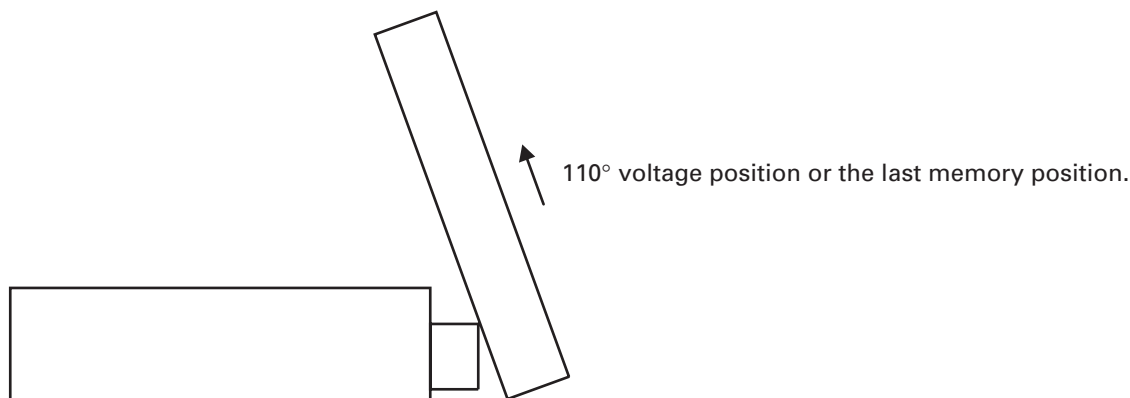
3. For a period of 600ms from the time when LIFTSW is switched from H to L, the forward/backward driving motor keeps rotating in the ejection direction.



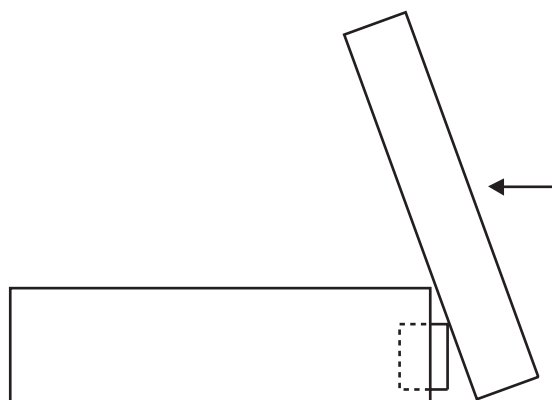
4. After 600ms, the forward/backward driving motor is stopped, and the angle driving motor rotates in the UP direction.



5. When the angle voltage reaches the voltage for 110° , brake is applied to the angle driving motor, and the ejection is completed. (In case the previous angle is stored in the memory, the motion continues to that angle.)

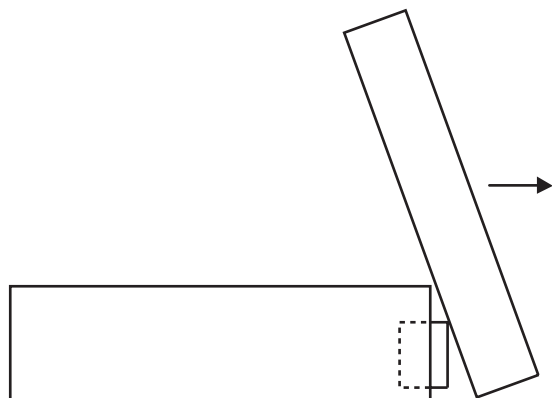


6. When the setback is set to ON, after the monitor angle voltage has reached the previously memorized voltage, brake is applied to the angle driving motor, then the forward/backward driving motor is rotated in slow speed in the storage direction. After that, when LIFTSW has switched from L to H, the forward/backward driving motor is stopped.

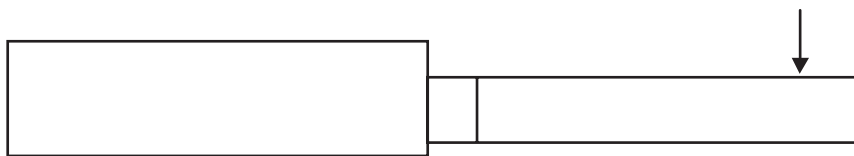


● Explanation of the FLAP storage motion

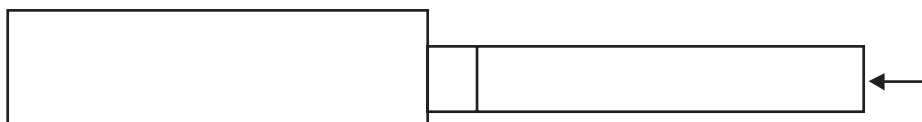
1. When CLOSE key is pressed, or after 6 seconds from ACC OFF when auto OPEN/CLOSE is being set to ON, the angle driving motor is rotated in the 0° direction. In case the setback setting is ON, the forward/backward driving motor is rotated in high speed in the ejection direction and the motor continues to rotate for 600ms from the time when LIFTSW is switched from H to L, then the angle driving motor is rotated in the 0° direction.



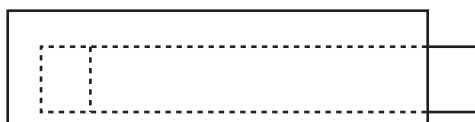
2. For a period of 500ms from the time when DIGOSW is switched from H to L, the angle driving motor is rotated in the 0° direction for the “pressed down” motion.



3. After 500ms, brake is applied to the angle driving motor, and then the forward/backward driving motor is rotated in the storage direction.

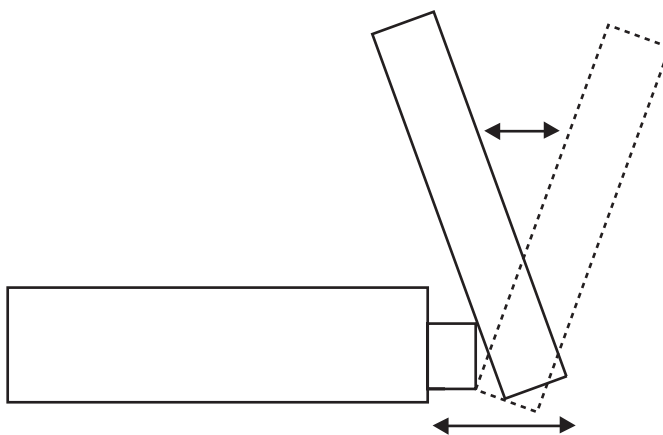


4. When the horizontal motion detection pulse is no longer detected for 200ms, brake is applied and the monitor storage motion is completed.



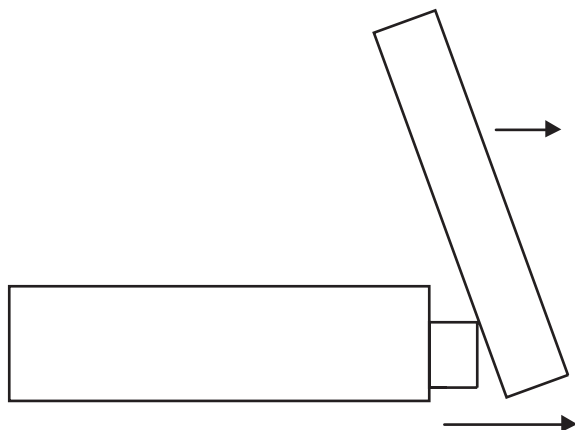
● Explanation on the FLAP angle adjustment

1. The angle driving motor is rotated in UP direction by the “+” key and in DOWN direction by the “-” key from the monitor stop position. If the key is kept pressed, the monitor will keep changing the angle without steps within the range of 50 to 110 degrees. When the setback is being set to ON, the forward/backward driving motor is rotated in the horizontal ejection direction while the key is being pressed, and angle adjustment is made by changing the angle voltage to the extent the angle adjustment key is effective after 600ms has elapsed from the time when LIFTSW has switched from H to L. When 3 seconds have elapsed from the time of angle adjustment completion, the forward/backward driving motor is rotated in slow speed in the horizontal storage direction, and brake is applied when LIFTSW has switched from L to H.

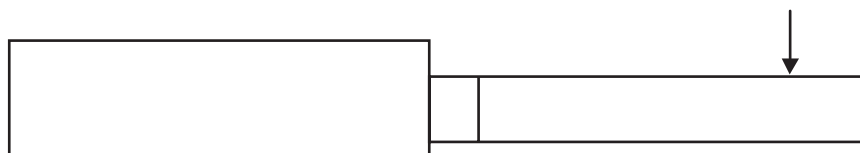


● Explanation on the FLAP temporary folding operation

1. By pressing the temporary folding key, the angle driving motor is rotated from the monitor stop position toward 0° direction. When the setback is being set to ON, the forward/backward driving motor is rotated when the key is pressed, brake is applied after 600ms has elapsed from the time when LIFTSW has switched from H to L, and the angle driving motor is rotated in 0° direction.



2. For a period of 500ms after DEGOSW has switched from H to L, the angle driving motor is rotated, and the monitor stops at its horizontal position by the brake. After 7 seconds, navigator operation sound is heard three times in 1 second interval. After 10 seconds, the angle driving motor is rotated in UP direction, and then the brake is applied to stop the motor at the last memory position. When the setback is being set to ON, after the angle driving motor stops at the last memory position, the forward/backward driving motor is rotated in slow speed in the horizontal storage direction, and the motor stops after LIFTSW has switched from L to H.



● Notes related to the FLAP motion

1. Regarding the angle position, angle voltage is always checked, and the last memory is stored by addition or subtraction of the voltage. It should be noted, however, that the last memory will not be stored when the monitor is manually moved by force.
2. If the expected pulse is not detected during horizontal motion, the monitor will stop at that position.

● Table of driving unit operations by different preset modes

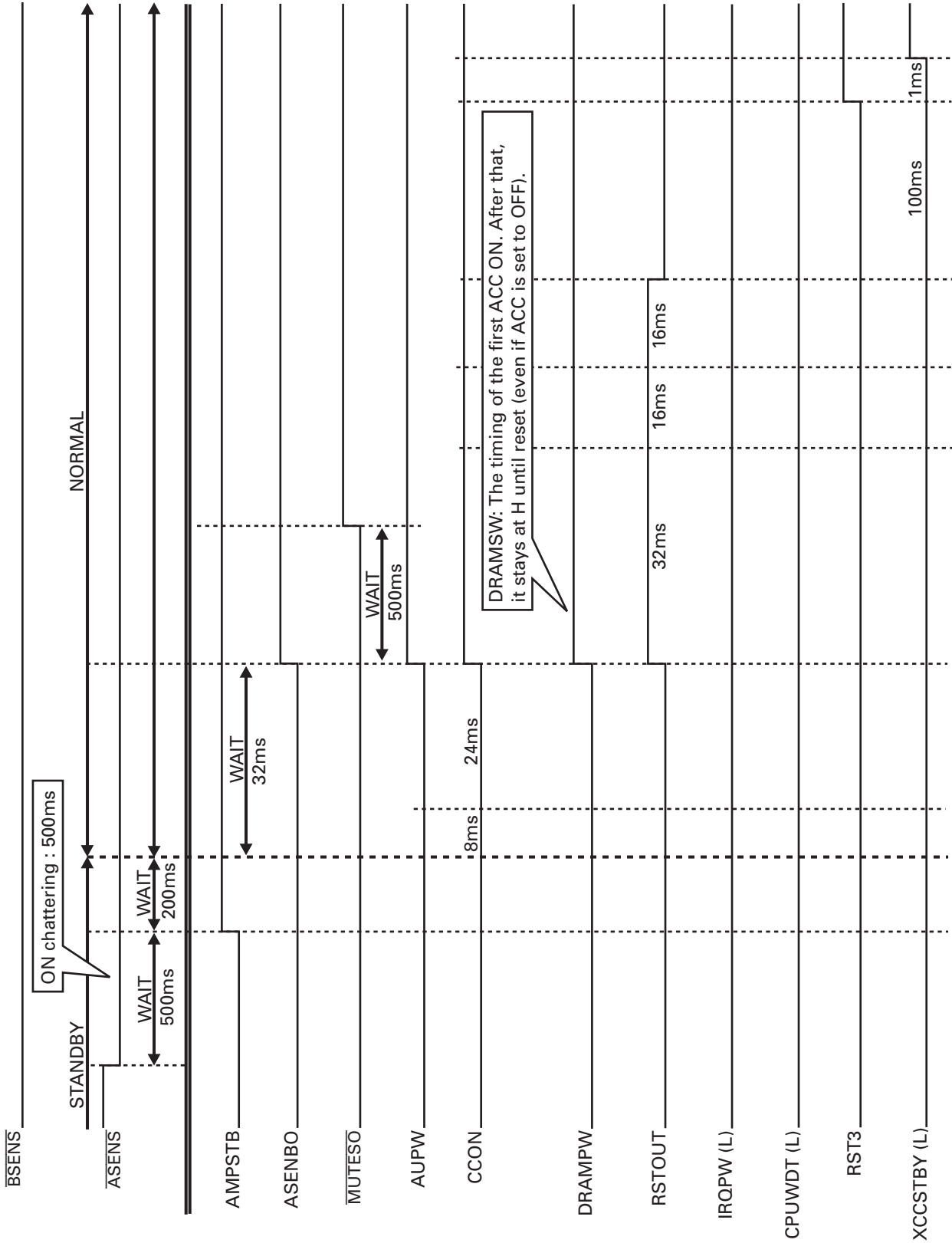
		OPEN state	In OPEN motion	In CLOSE motion	CLOSE state
Auto OPEN/CLOSE setting ON	Bup ON (Reset start)	CLOSE state ↓ CLOSE ↓ OPEN state ↓ Last angle	—	—	Continue OPEN motion ↓ Last angle
	Bup OFF	To stand-by	To stand-by	To stand-by	To stand-by
	Bup OFF→ON	No state change	Continue OPEN motion ↓ Last angle ↓ Return	Continue CLOSE motion ↓ CLOSE	No state change
	ACC ON	No state change	—	—	OPEN motion ↓ Last angle ↓ Return
	ACC OFF→ON	No state change	Continue OPEN motion ↓ Last angle ↓ Return	Continue CLOSE motion ↓ CLOSE	No state change
	ACC OFF	6 sec from ACC OFF ↓ Advance ↓ CLOSE motion ↓ CLOSE	Continue OPEN motion ↓ Last angle ↓ Return ↓ 6 sec from ACC OFF ↓ Advance ↓ CLOSE motion ↓ CLOSE	Continue CLOSE motion ↓ CLOSE	No state change
	Last memory	OPEN	OPEN	CLOSE	CLOSE
Auto OPEN/CLOSE setting OFF	Bup ON (Reset start)	—	—	—	—
	Bup OFF	To stand-by	To stand-by	To stand-by	To stand-by
	Bup OFF→ON	No state change	Continue OPEN motion ↓ Last angle ↓ Return	Continue CLOSE motion ↓ CLOSE	No state change
	ACC ON	No state change	—	—	No state change
	ACC OFF→ON	No state change	Continue OPEN motion ↓ Last angle ↓ Return	Continue CLOSE motion ↓ CLOSE	No state change
	ACC OFF	No state change	Continue OPEN motion ↓ Last angle ↓ Return	Continue CLOSE motion ↓ CLOSE	No state change
	Last memory	OPEN	OPEN	CLOSE	CLOSE

* When the setback is being set to OFF, there will be no advance/return motion.

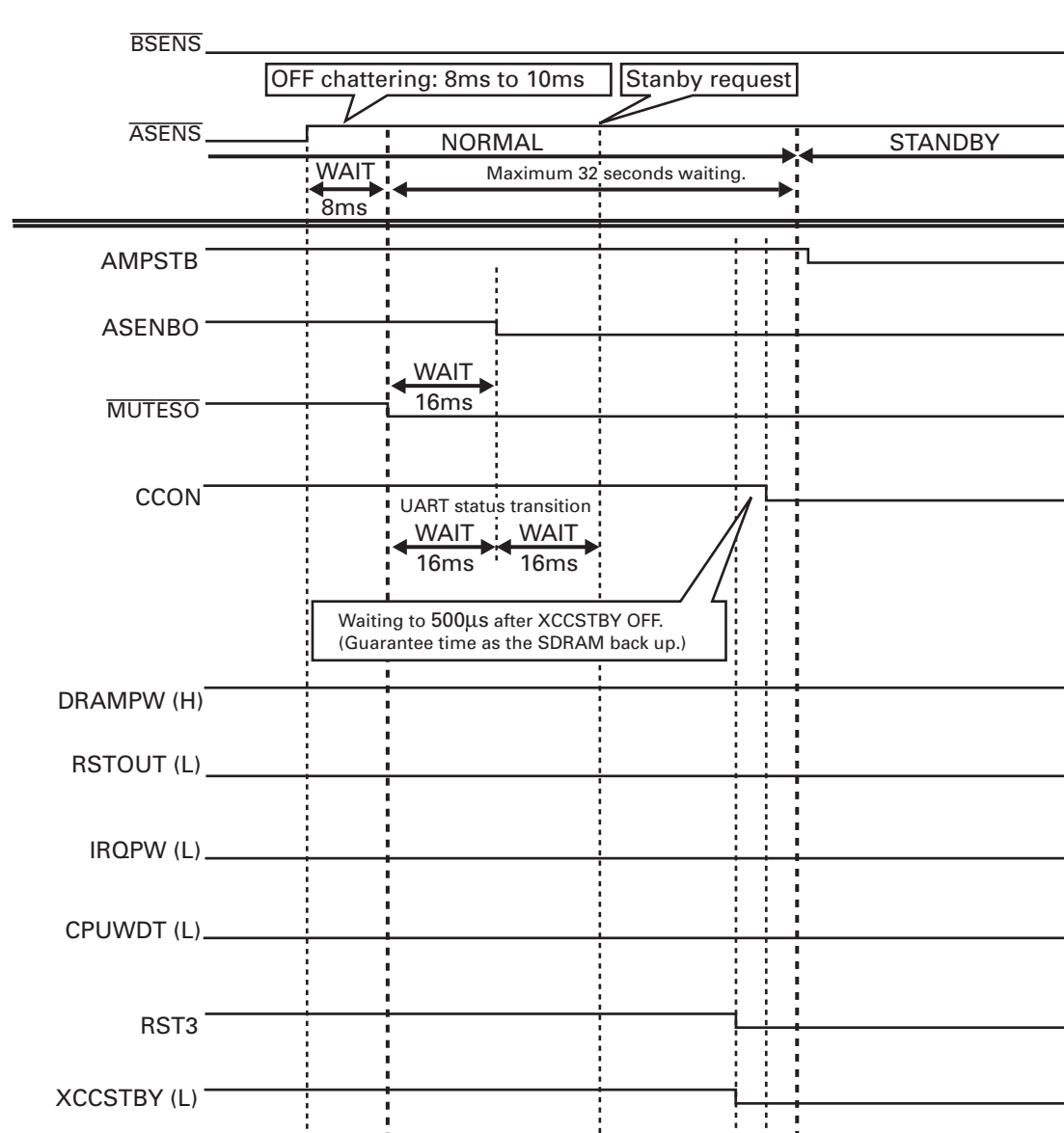
After ACC OFF, if ACC is switched ON again during the 6 seconds counting, standby will be passed and the FLAP status will not change.

7.3.2 OPERATIONAL FLOW CHART

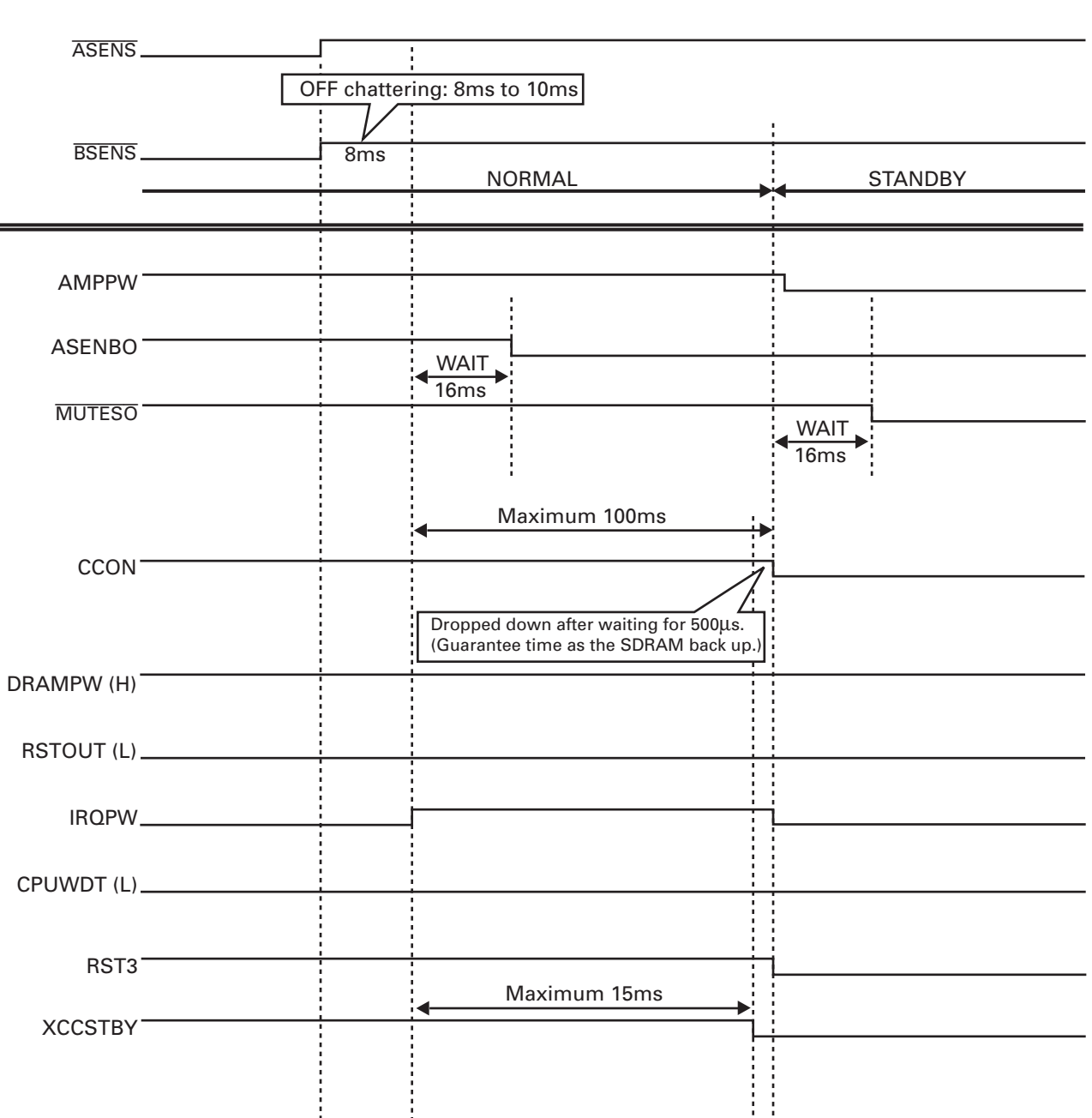
● Navigation Unit (1) (ACC ON)



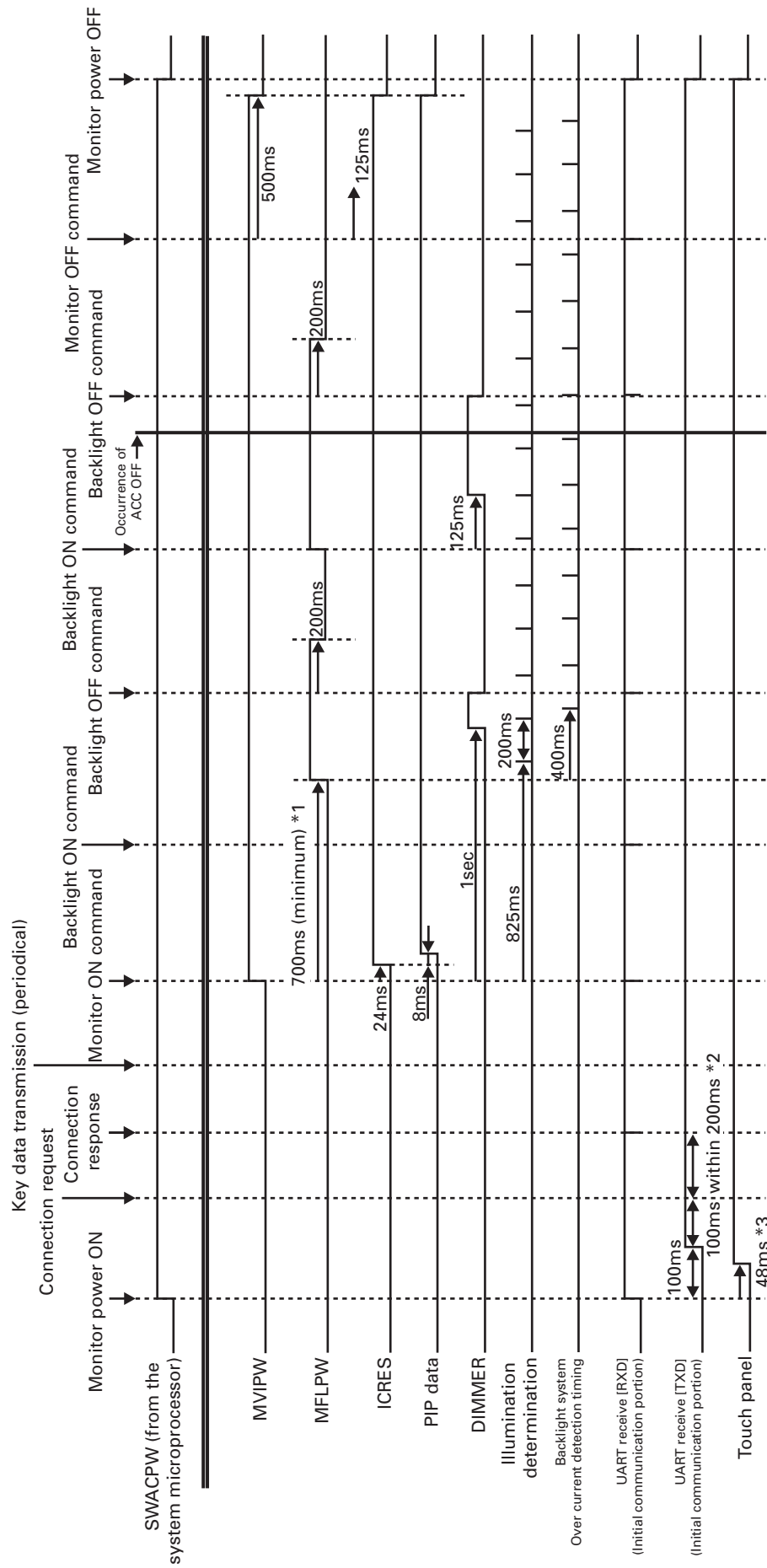
● Navigation Unit (2) (ACC OFF)



● Navigation Unit (3) (BUP OFF)



● Monitor Unit



* 1 : While MFLPW will turn ON by the backlight ON command, it will not turn ON for at least 700ms after MVI PW ON.

* 2 : In case connection response is not received from the system microprocessor within 200ms from the transmission of connection request, retry process will take place. Retry process will take place for 200ms x 16 times. In case the retry process is finished without receiving the request signal, the initial communication is determined to be NG (connection NG), and no more process will take place.

* 3 : After 48 ms from the monitor power ON, the touch panel process (taking in AD coordinate) will take place.

7.4 CLEANING

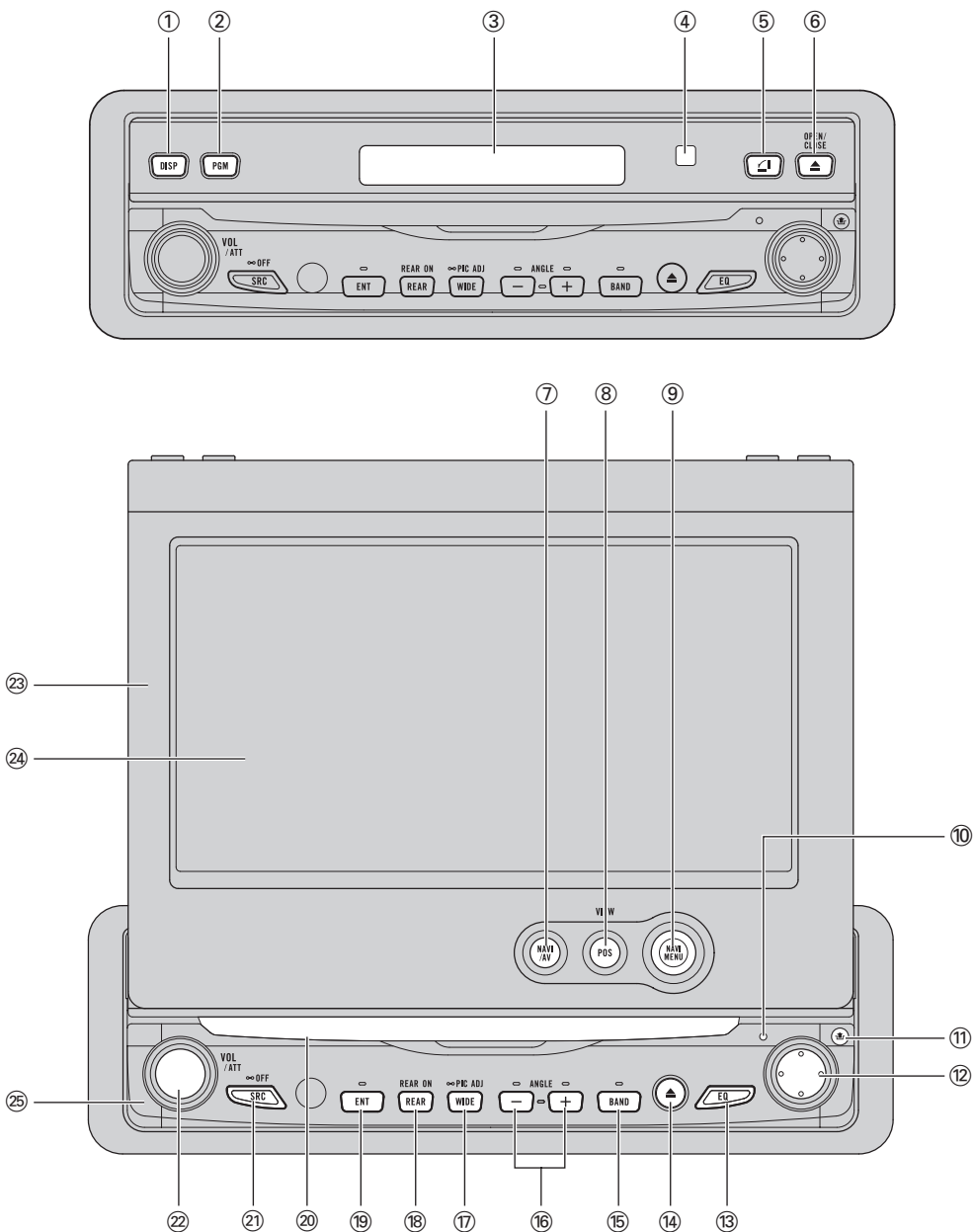


Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

Portions to be cleaned	Cleaning tools
DVD pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

Portions to be cleaned	Cleaning tools
Fans	Cleaning paper : GED-008

8. OPERATIONS



- (1) DISP button**
Press to select different displays.
- (2) PGM button (AVIC-N2/XU/UC)**
Press to operate the preprogrammed functions for each source.
- (2) TA/NEWS button (AVIC-X1R/XU/EW)**
Press to turn traffic announcements function on or off. Press and hold to turn NEWS function on or off.
- (3) Sub display**
Current time or the information of the audio source currently playing is displayed when the LCD panel is closed.

- (4) Ambient light sensor**
Senses ambient light. This system automatically adjusts the brightness of the display to compensate for ambient light.
- (5) FLIP DOWN/CLOCK button**
Press to turn the LCD panel horizontal temporarily when the LCD panel is upright.
Press to turn the clock of the sub display on or off when the LCD panel is closed.

(6) OPEN/CLOSE button

Press to open or close the LCD panel.

(7) NAVI/AV button

Use to switch between Navigation map displays and audio operation displays.

(8) POS button

Press to view the map or return to guidance.
Also, when the map is scrolling, pressing this button returns you to the display of the map of your surroundings.
Use to switch the view mode of the navigation when the map of your surroundings is displayed.

(9) NAVI MENU button

Press to display a menu of Navigation.

(10) RESET button

Press to return to the factory settings (initial settings). Some information items are not erased.

(11) DETACH button

Press to remove the front panel from the display unit.

(12) Joystick

Move to do manual seek tuning, fast forward, reverse and track search controls, etc. Push to display **A.MENU**.

(13) EQ button

Press to select various equalizer curves.

(14) EJECT button

Press to eject a disc from this unit.

(15) BAND button**Radio:**

Press to select among three FM and one AM bands.

Built-in DVD drive:

When playing back a disc containing an MP3 file and audio data (CD-DA), pressing this button switches playback between the MP3 file and CD-DA. Touch and hold this button when a disc containing an MP3 file is inserted returns you to the root folder.

(16) ANGLE (+/-) button

Press to change the LCD panel angle.

(17) WIDE button

Press to select a desired mode for enlarging a 4:3 picture to a 16:9 one.

Press and hold to enter the **PICTURE ADJUST** mode.

(18) REAR button

Press to output to the REAR OUT terminal the sound and images of a disc inserted in the built-in DVD drive that is different the currently selected source.

(19) ENT button

Press to switch between the background displays.

(20) Disc loading slot

Insert a disc to play.

(21) SRC (SOURCE) button

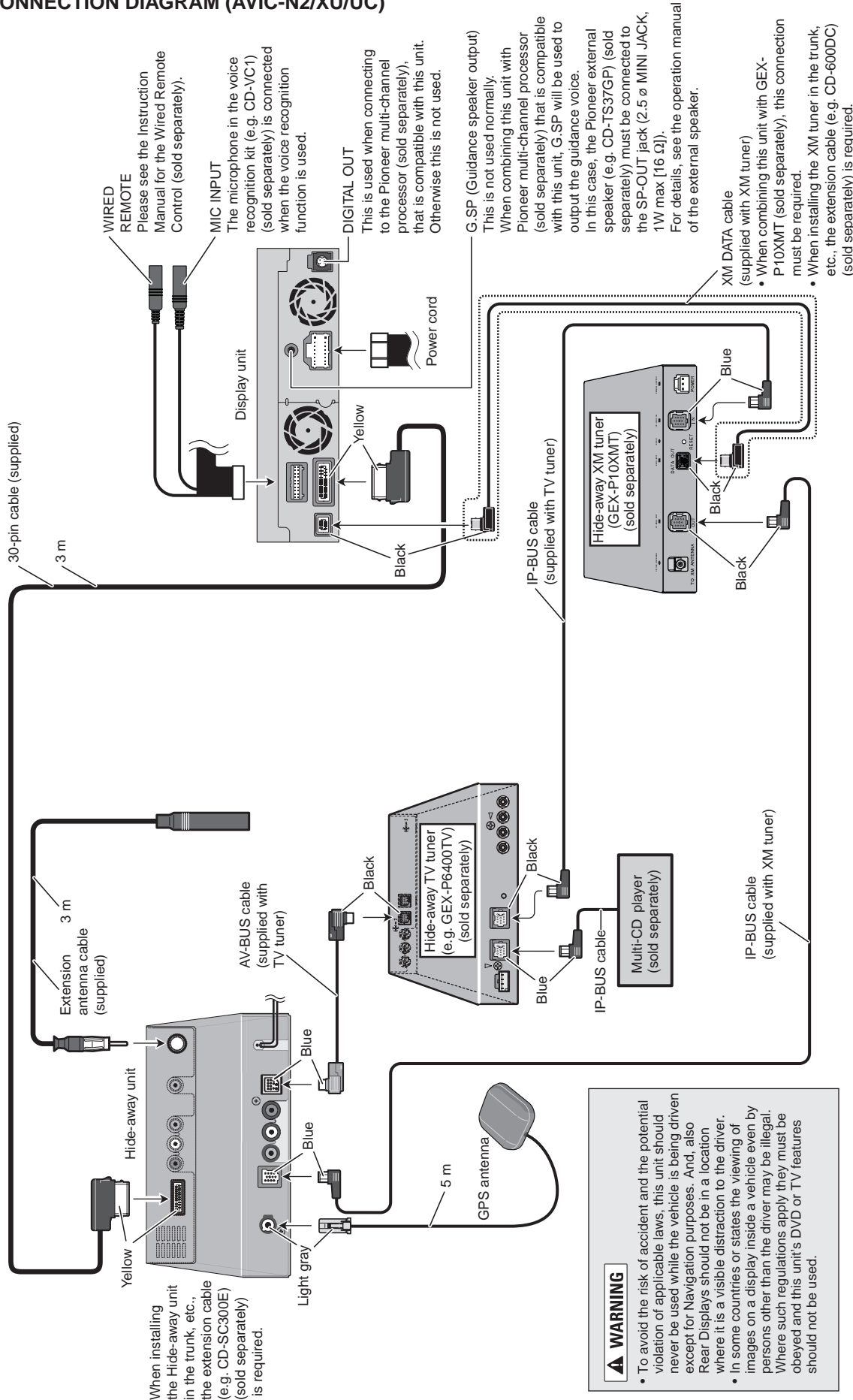
This unit is turned on by selecting a source. Press to cycle through all of the available sources. Press and hold to turn the source off.

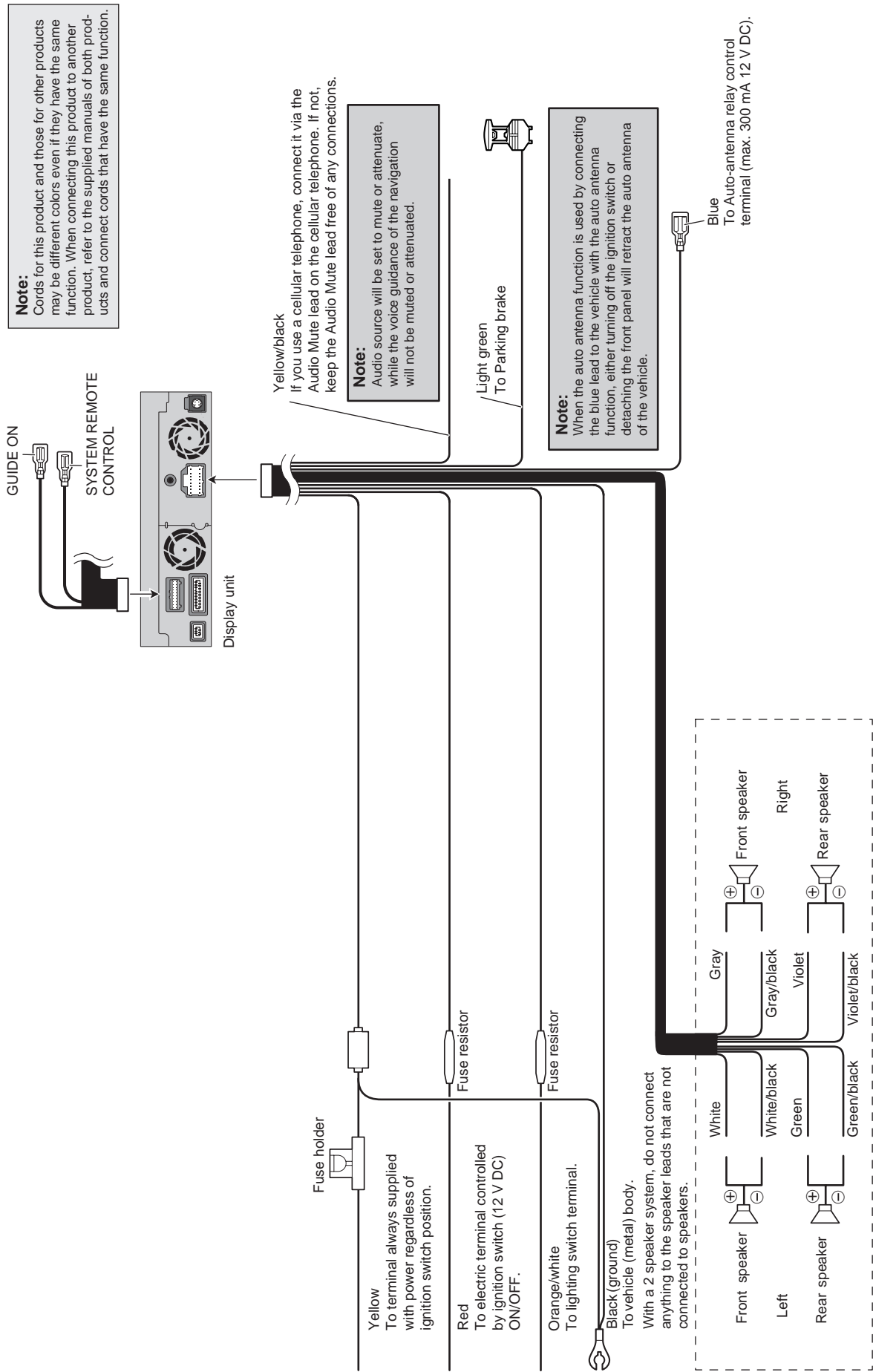
(22) VOLUME/ATT button

Rotate to increase or decrease the volume. Press to quickly lower the volume level, by about 90%. Press once more to return to the original volume level.

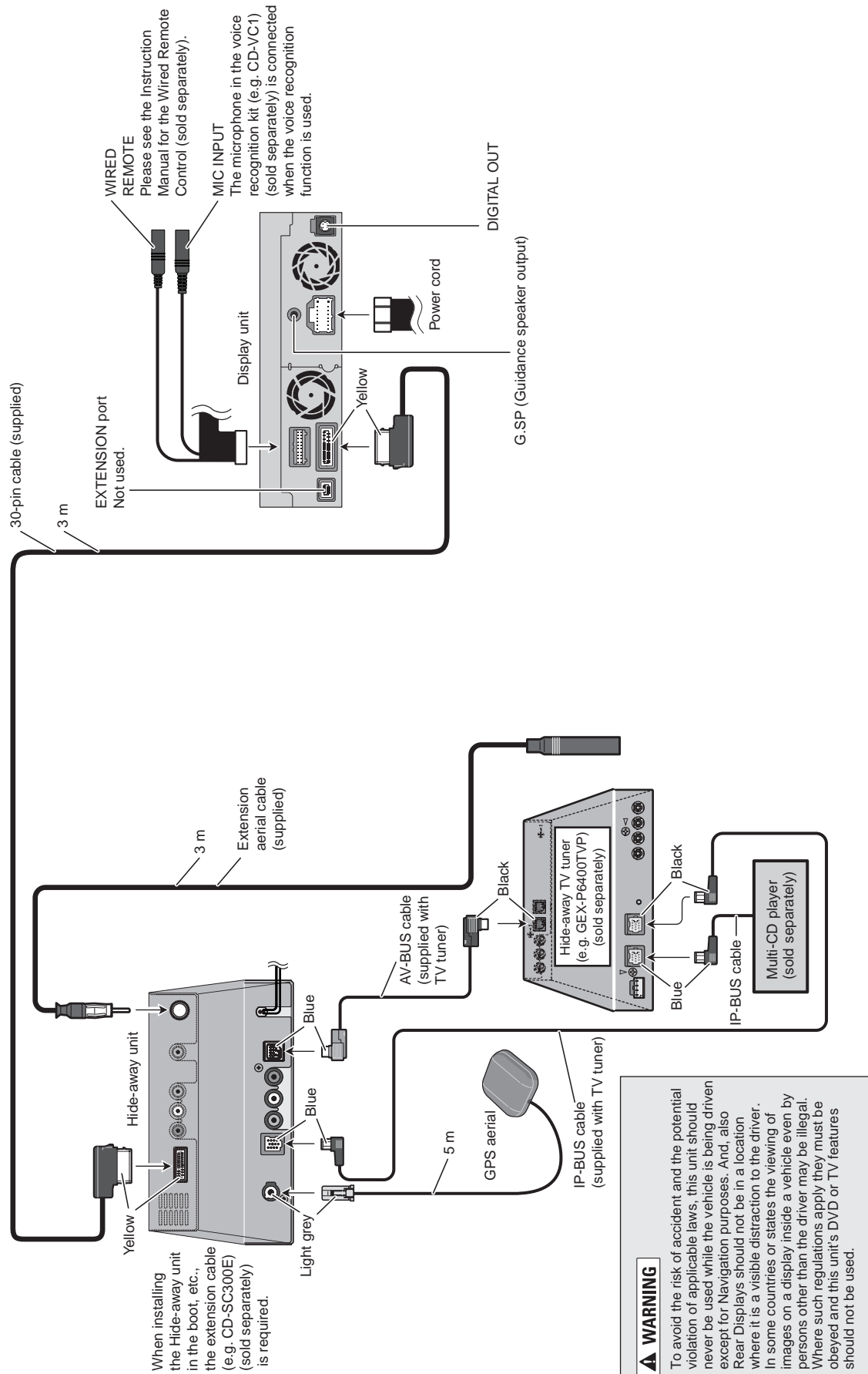
(23) LCD panel**(24) LCD screen****(25) Front panel**

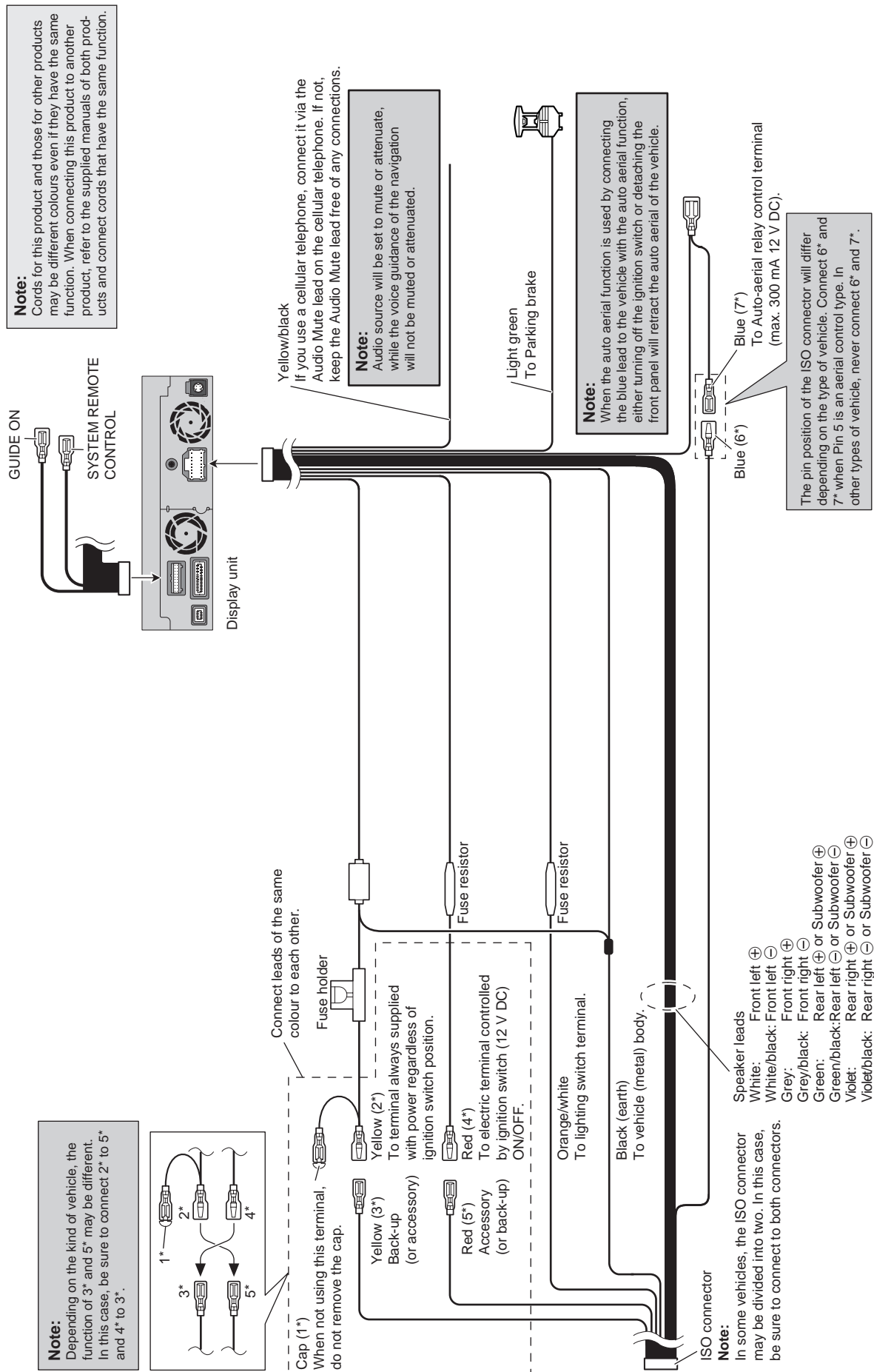
● CONNECTION DIAGRAM (AVIC-N2/XU/UC)





● CONNECTION DIAGRAM (AVIC-X1R/XU/EW)





After Installing the Unit

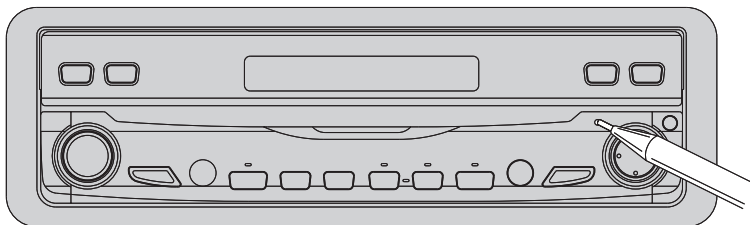
1. Reconnecting the battery.

First, double-check that all connections are correct and that the unit is installed correctly. Reassemble all vehicle components that you previously removed. Then reconnect the negative (–) cable to the negative (–) terminal of the battery.

2. Start the engine.

3. Press the RESET button on the display unit.

Press the RESET button on the display unit using a pointed object such as the tip of a pen.



4. Enter the following settings:

- Install the programme in the navigation system.
- Drive until the initialized sensors start operating normally.
- Set the time and language.

Note:

If you reconnected the Hide-away unit, press the RESET button.

After installing the unit, be sure to check at a safe place that the vehicle is performing normally.

■

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A

B

C

D

E

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AVIC-N2/XU/UC

■

7

■

8

■

● JIG's List

Function	Name	Jig No.
CC Unit (CN609) <--> Main Unit (CN3801)	PCB	GGF1461
CC Unit (CN609) <--> GGF1461	40P FFC	GGD1170
CC Unit (CN609) <--> GGF1461	20P FFC	GGD1209
CC Unit (CN608) <--> Monitor PCB (CN4002)	PCB	GGF1483
CC Unit (CN2701) <--> Panel PCB (CN5901)	18P FFC	GGD1208
Monitor PCB (CN4002) <--> GGF1483	36P FFC	GGD1366
Monitor Adjustment PCB	PCB	GGF1416
JIG connector Assy	PCB and FFC	GGF1463
Monitor PCB ("FOR SERVICE" 14P terminal) <--> GGF1463	14P FFC	GGD1323
TEST DISC (Operation check)	CD-ROM or DVD-ROM	GGV1137
DVD pickup lenses	CLEANING LIQUID	GEM1004
DVD pickup lenses and Fans	CLEANING PAPER	GED-008

Service Manual

ORDER NO.
CRT3056

DVD MECHANISM MODULE(MS3)

CX-3016

- This service manual describes the operation of the DVD mechanism modules incorporated in the models listed below.
- When performing repairs use this manual together with the specific manual for the model under repair.
- The DVD mechanism MS3 has VIDEO-type and ROM-type models. This manual covers the operations for both models.

Model	Service Manual	DVD Mechanism Module
AVH-P6500DVD/UC	CRT3038	CXK6310
DVH-P5000MP/UC	CRT3074	CXK6312
AVH-P7500DVD/UC	CRT3039	CXK6300

CONTENTS

- 1. CIRCUIT DESCRIPTIONS2
- 2. MECHANISM DESCRIPTIONS.....15
- 3. DISASSEMBLY20

PIONEER CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS SERVICE INC. P.O.Box 1760, Long Beach, CA 90801-1760 U.S.A.
PIONEER EUROPE NV Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE.LTD. 253 Alexandra Road, #04-01, Singapore 159936

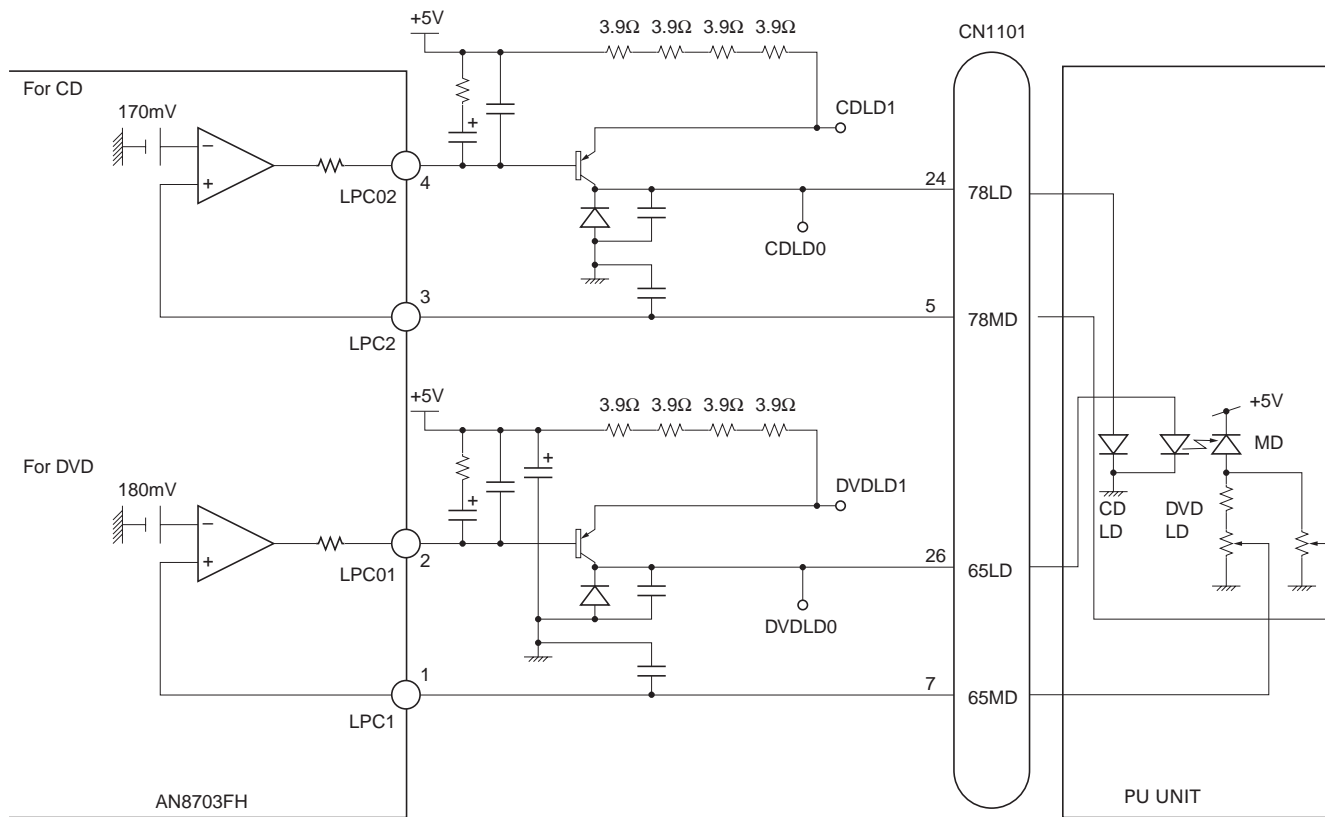
1.Circuit descriptions

1.1 Front-end processor (FEP) section (AN8703FH: IC1101)

The IC1101 generates servo signals for focus and tracking operations, processes the RF signal, and controls the laser power of the pickup.

For servo signal processing, the IC contains a focus operational amplifier, a focus balance adjustment circuit, a three-beam tracking operational amplifier, a phase-difference tracking detection circuit, a tracking balance adjustment circuit, and an envelope detection circuit.

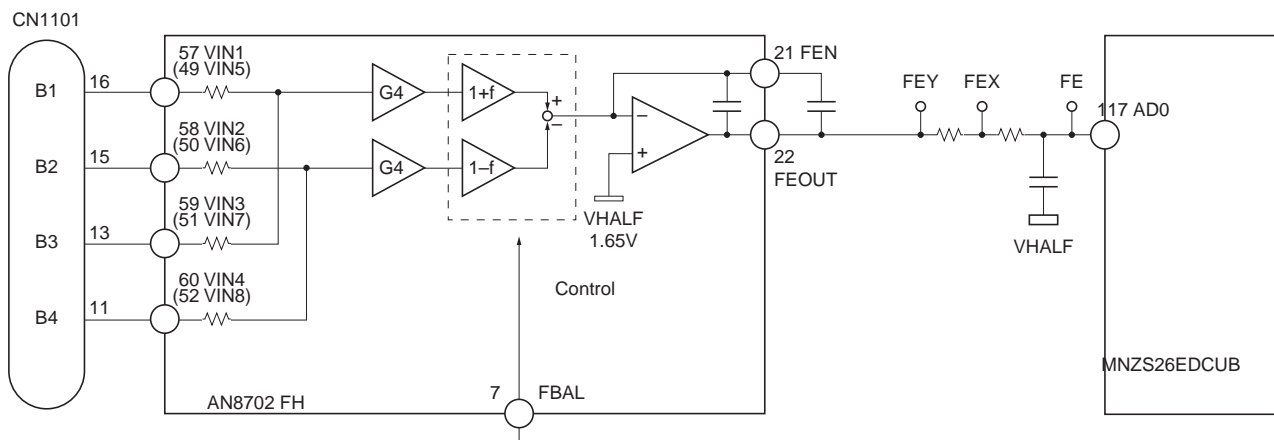
For the RF signal processing, the AGC and equalizer functions are contained in the IC.



1.1.1 APC circuit

The light output of laser diodes (LD) has largely negative thermal characteristics. If they are driven with a constant current, the laser power level will not be constant. The APC circuit is designed to control the current so that the laser power becomes constant through the monitor diode (MD). The IC AN8703FH contains two APC circuits, one for DVDs and the other for CDs. The LD current values for DVDs can be calculated by dividing the voltage between the DVDLD1 (or CDLD1 for CDs) and 5V line by 15.6 ohms ($3.9 \text{ ohms} \times 4$): approximately 26mA and 44mA for DVDs and CDs respectively.

1.1.2 Focus error (FE) generating circuit



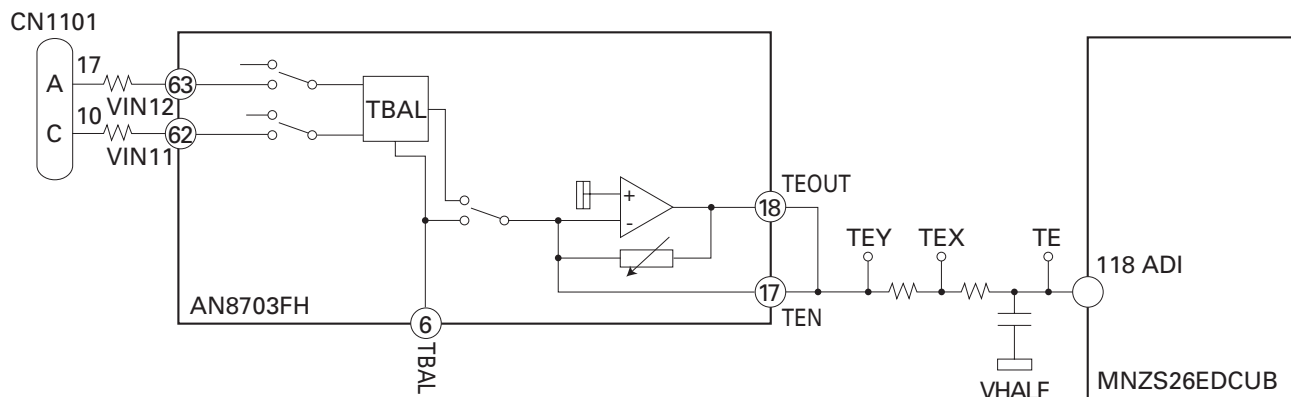
The pin numbers and names in the brackets are for CDs. The circuits for CDs and DVDs are identical, except for the input terminals of the signals B1 through B4.

Focus error (FE) generating circuit

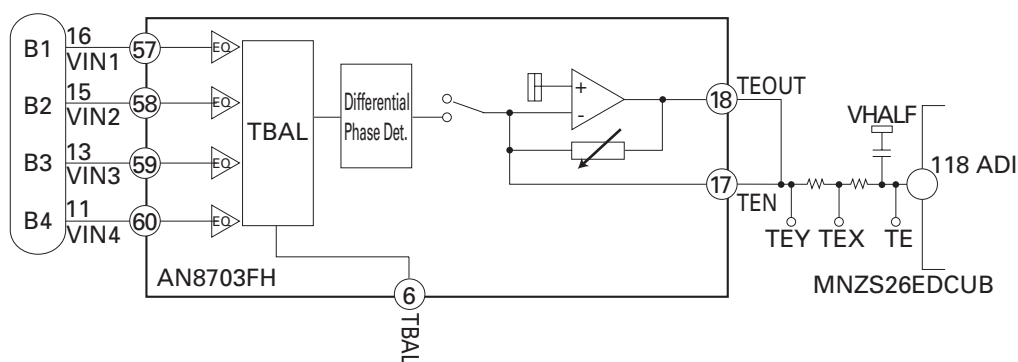
The signals B1 through B4, obtained by dividing the output in the pickup, are applied to the FE generating circuit. Inside the circuit, the $(B1 + B3)$ and $(B2 + B4)$ signals are generated via the internal resistors, fed into the variable amplifier for the focus balance adjustment, and finally the FE signal is generated by amplifying the $\{(B1 + B3) - (B2 + B4)\}$ signal.

1.1.3 Tracking error (TE) generating circuit

- CD (three-beam TE)



- DVD (phase difference TE)



Tracking error (TE) generating circuit

For DVDs, the TE signal is generated by utilizing the phase difference between the (B2 + B4) and (B1 + B3) signals (the phase difference method).

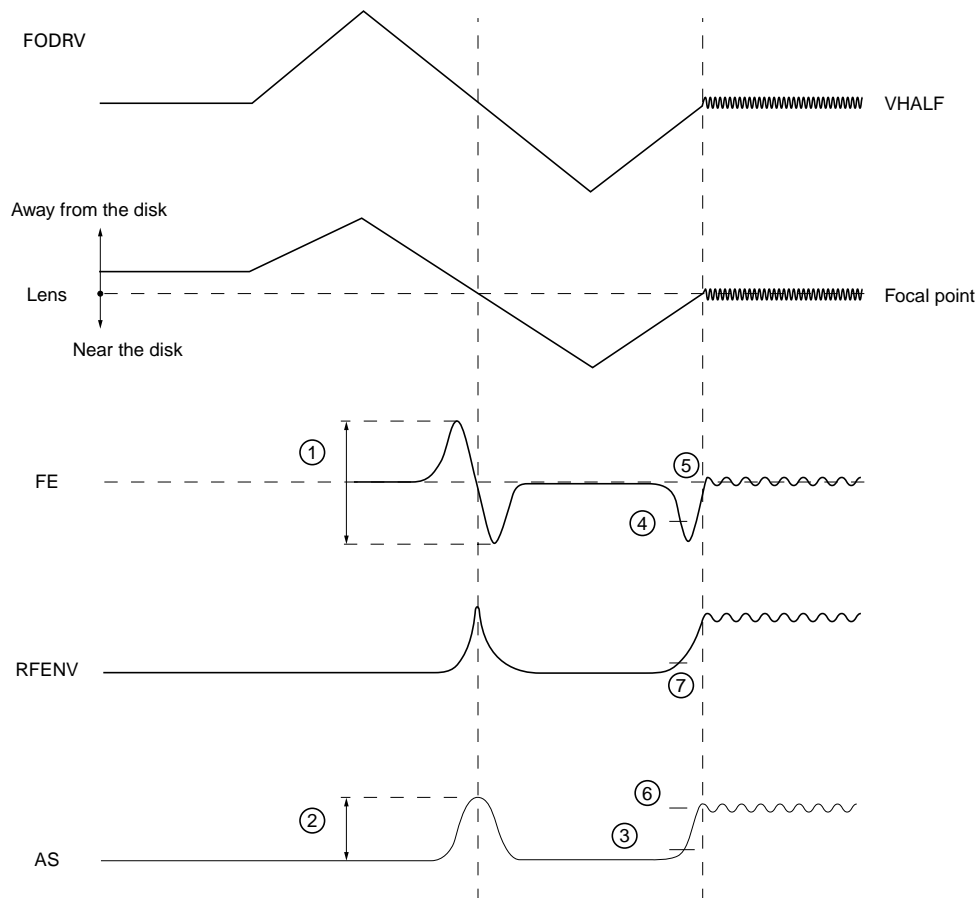
For CDs, the A and C signals are applied to the TE generating circuit via the external resistors. Inside the circuit the signals are fed to the variable amplifier for the tracking balance adjustment, and finally the TE signal is obtained by amplifying the (A – C) signal (the three-beam method).

1.2 Optical disc controller (SODC) section (MNZS26EDCUB: IC1301)

The IC1301, an optical disc controller (SODC) for DVD-ROM/DVD players, is one of a signal processing LSI conforming to the DVD standards.

This IC works as a servo controller for the focus, tracking and traverse operations, a spindle motor controller, a seek controller, a digital signal processor for DVD-ROM/RAM reproduction (8/6 demodulation and error correction), and a digital signal processor for CD-ROMs (error correction). In the DSC (Disc Servo Controller) employing an arithmetic processor as a core, analog circuits such as A/D and D/A converters and PLL, and digital circuits including a PWM converter and a cycle timer are contained. In the CIRC, a digital signal processor for CD-DA and CD-ROMs (EFM demodulation and error correction), a spindle motor digital servo processor, and a 1-bit D/A converter with a digital filter (with a secondary low-pass filter, differential OP amplifier output) are prepared. This LSI has easily realized a complete CD/DVD-ROM system.

1.2.1 Focus close



After a focus close command is issued, the following procedures are performed irrespective of DVDs and CDs:

1. Measuring and optimizing the signal levels

The pickup lens initially moves away from the disc, and then toward the disc. When the pickup lens passes the focal point, the FE, AS and RFENV signal levels are measured to optimize the FE and AS signal levels (1 and 2 shown in the above diagram).

2. Focus closing

Next, the pickup lens moves away from the disc to detect the focus closing levels for FE and AS signals. The focus loop filter operates to close the focus loop (3 through 6 in the above diagram).

3. Verifying focus close completion

The focus close completion is verified by observing the AS and RFENV signal levels (6 and 7 in the above diagram).

In the test mode, focus search is used to verify the FE, AS and RFENV signal levels and the focus drive voltage.

1.2.2 Tracking close

After a tracking-close command is issued, the following procedures are performed irrespective of DVDs and CDs:

1. Tracking brake

A half cycle of the track-cross (TKC) signal is measured. If the measured cycle falls within the prescribed range, then a brake pulse signal is output. The direction of the brake pulse depends on the relation in phase between the OFTR signal and TKC signal (which is obtained by converting the TE signal into a binary signal). When it is confirmed that the stability in lens operation against the disc has been obtained, the brake pulse output will be terminated, and the operation will proceed to the track-closing mode. If it is not confirmed, the brake pulse output will be terminated 10msec. after the brake pulse signal is output, then the operation will automatically proceed to the track-closing mode.

2. Tracking closing

The tracking drive-hold process is performed with the OFTR signal.

3. Verifying tracking close completion

The success or failure in tracking close depends on the number of tracks that the pickup crosses within the prescribed period. That is, when the number is the prescribed one or less, the system senses that the tracking close is completed. The time limit for the tracking close verification process is 20msec. The retry operation will be carried out with the command from the microcomputer if the verification has not been completed within the time limit.

1.2.3 Track jump

This system performs track jumps by selecting the following three modes depending on the number of tracks to be skipped: Interval jump, multi jump and traverse jump.

1. Interval jump

In this mode, a single-track jump is performed repeatedly. This mode is used for fine seek operation when the pickup has approached the target track or adjacent tracks are targeted.

2. Multi jump

This mode performs the pickup track-count movement by counting both edges of the TKC signal to jump the target number of tracks.

3. Traverse seek

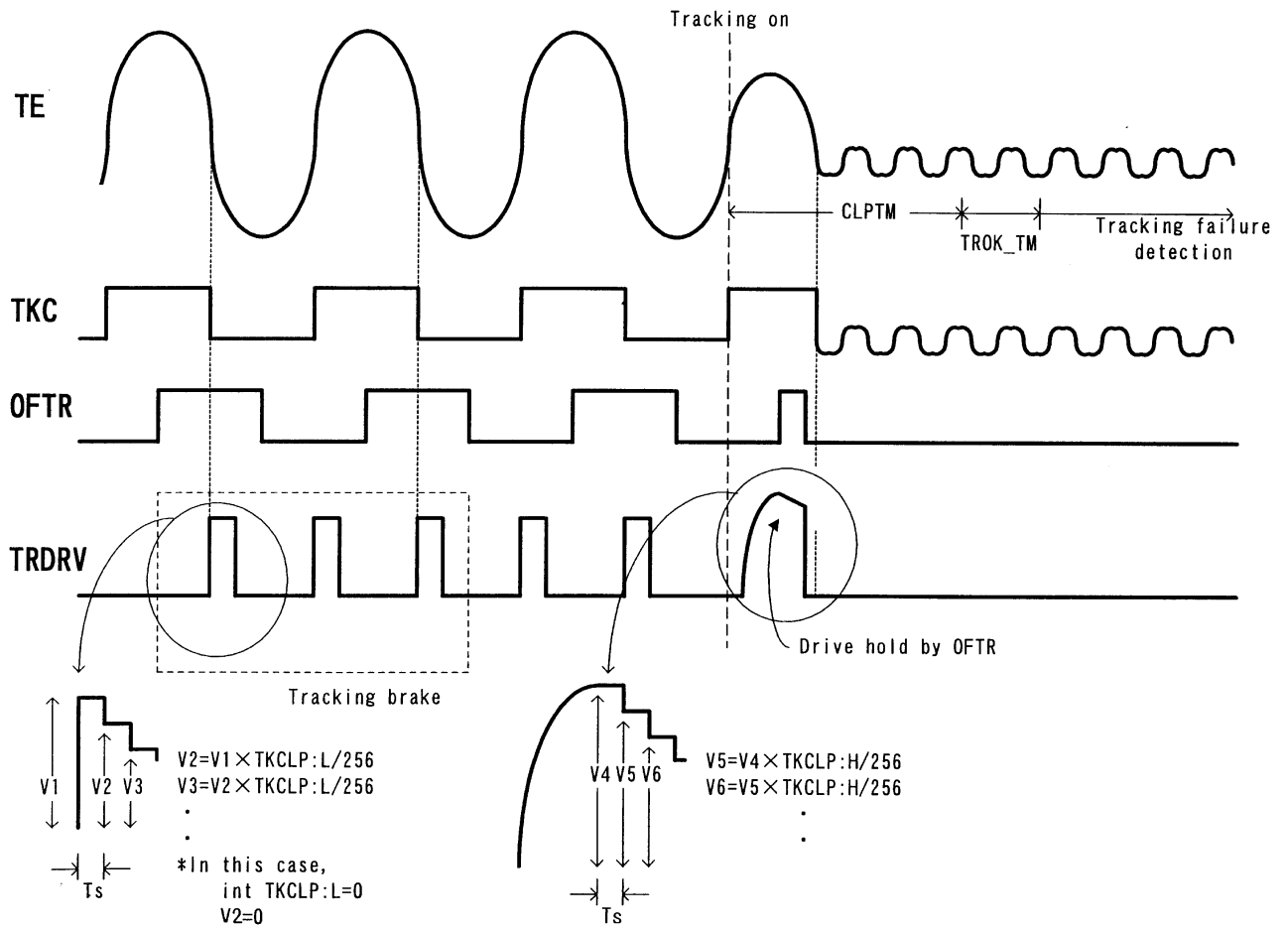
In this mode, the time is measured with the TKC signal to control the pickup speed. During the movement of the pickup, its vibration is minimized.

The track-jump mode settings for DVDs and CDs are shown below:

Target number of tracks	Track jump mode
1~10	Interval jump
11~100	Multi jump
101~500	Combination of multi jump and interval jump
501~	Traverse seek

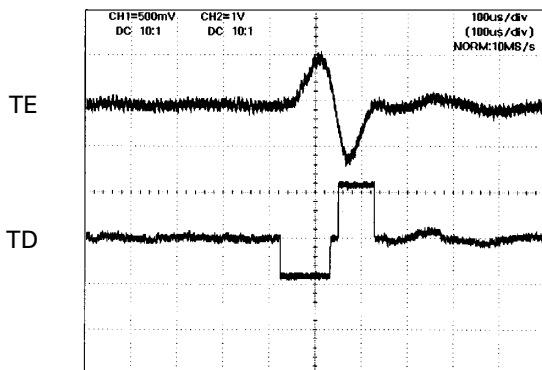
The waveform in each of the track-jump modes is shown in the following pages.

Tracking-on process

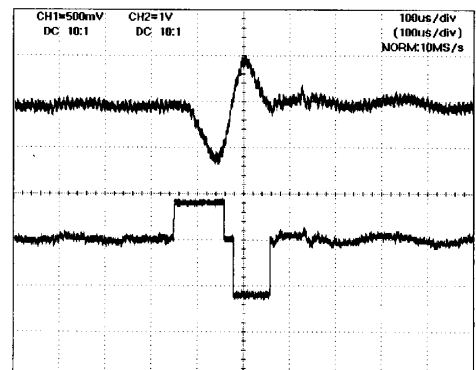


Interval jump (one track)

Toward outer tracks



Toward inner tracks

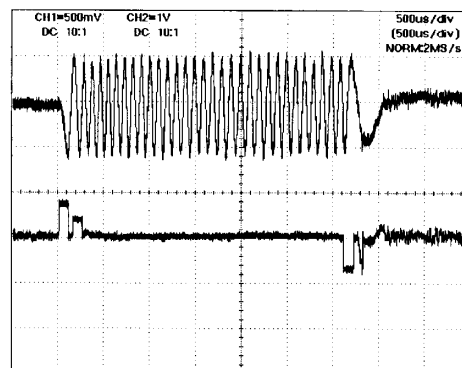
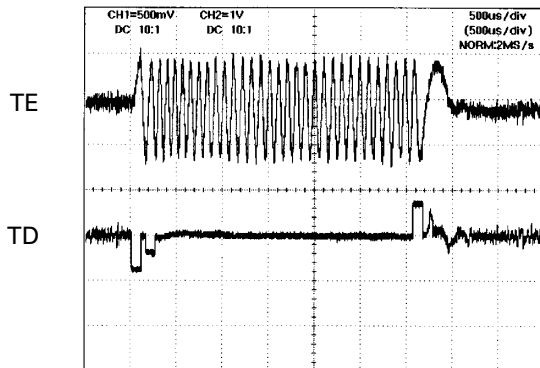


Multi jump (32 tracks)

A

Toward outer tracks

Toward inner tracks

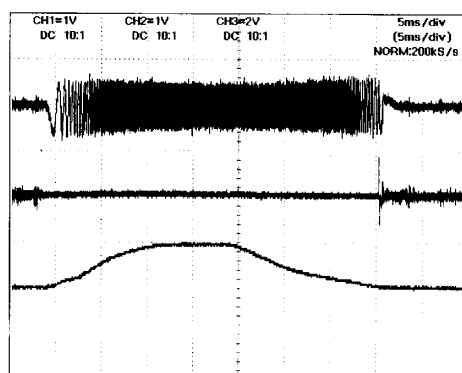
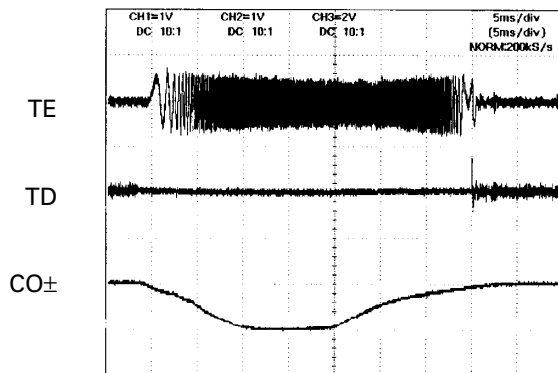


Traverse seek (501 tracks)

C

Toward outer tracks

Toward inner tracks

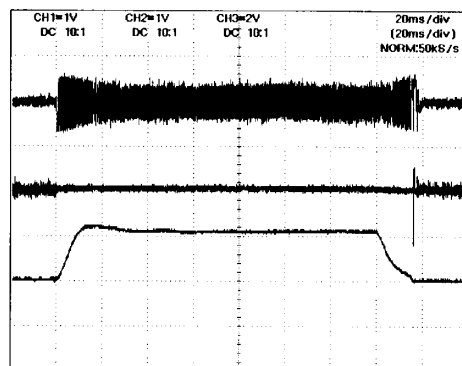
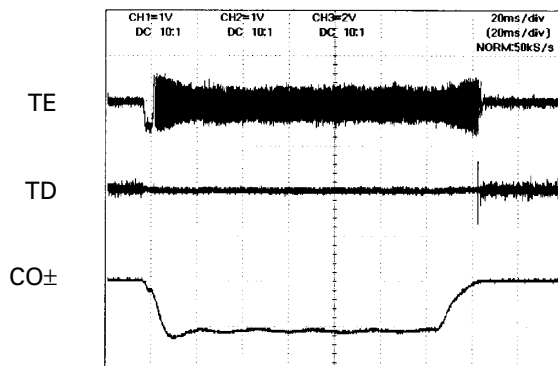


Traverse seek (5,000 tracks)

E

Toward outer tracks

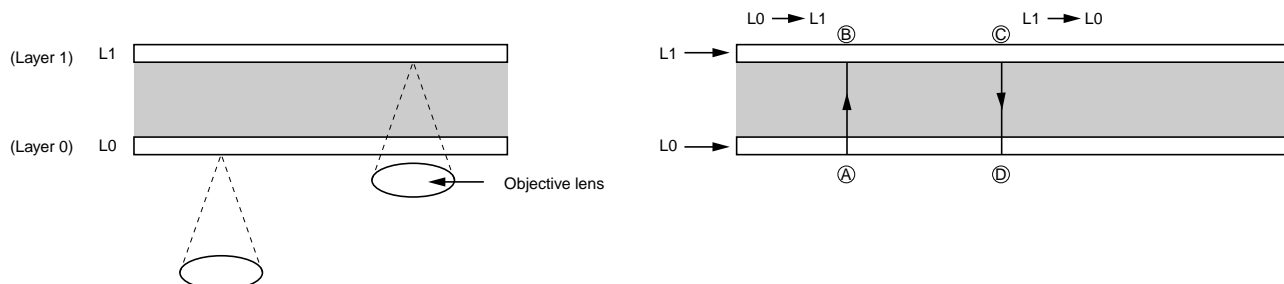
Toward inner tracks



F

1.2.4 Focus jump

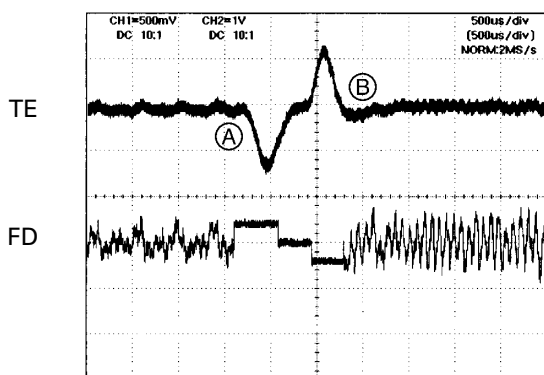
Focus jump is used for single-sided, double-layered or double-sided, double-layered discs. The layer closest to the objective lens is called layer 0 (L0), and the other layer is layer 1 (L1).



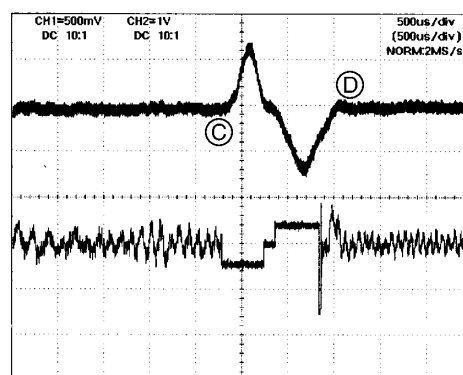
The waveforms in the focus jump mode are shown below:

Focus jump waveform

L0→L1



L1→L0



The focus-jump operation flow is described below:

1. The tracking loop is unlocked on the layer that is being played.
2. A jump command is issued to jump to the targeted layer.
3. The tracking loop closes on the targeted layer and reproduction starts.

The detailed processes after a jump command is issued are as follows:

1. The pickup lens is accelerated towards the target layer until the FE signal detects the focus jump acceleration completion level. If the acceleration timeout occurs before the acceleration completion level is detected, the acceleration is forcibly terminated.
2. No drive voltage is applied until the FE signal detects the deceleration starting level, and the lens is kept moving by the inertia.
3. With the deceleration starting level detected, the lens starts decelerating, and continues it until the deceleration completion level is detected. If the deceleration timeout occurs before the deceleration completion level is detected, the deceleration is forcibly terminated.

1.3 Automatic adjustment functions

This system automatically performs all circuit adjustments by combined operations of the ICs AN8703FH (FEP) and MNZS26EDCUB (SODC). Each automatic adjustment function is explained below:

1.3.1 FE, TE and AS offset cancel

The analog signals FE, TE and AS, generated by the FEP, are A/D-converted by the A/D converter inside the SODC. When the power is turned on, the offset cancel works to cancel the input offset of the A/D converter.

1.3.2 Data slice balance (DBAL) adjustment

The DBAL adjustment is made to adjust the data-slice level that is used when the RF signal from the FEP is converted to a binary signal in the SODC. When the power is turned on, the test signal of the constant frequency is output from the SODC and the jitter component of the signal is adjusted to the minimum.

•In the same manner as the above, the PLL balance (PBAL) adjustment is made to optimize the current level balance between the P-ch and N-ch sides of the chargeable pump.

1.3.3 FE regulating adjustment

The FE signal level measured when the focus loop is closed is A/D-converted in the SODC. Then it is adjusted so that it becomes 190LSB at the input stage of the digital equalizer.

1.3.4 Spindle gain learning

The time is measured that is required for the spindle motor to start rotating in the stop mode and reach the prescribed rotation. The measured time is used to adjust the SPDL gain, thereby absorbing the variation in the motor torque.

1.3.5 Tracking balance (TBAL) adjustment

In the focus close and tracking open mode, the lens is vibrated in the tracking direction. The tracking balance is adjusted so that the DC offset becomes zero (the balance point) by using the Newton-Raphson's method.

1.3.6 Tracking error amplitude learning

In the focus close and tracking open mode, the lens is vibrated in the tracking direction. After A/D-converted in the ADSC, the amplitude level of the TE signal is adjusted so that it becomes 190LSB at the input stage of the digital equalizer.

1.3.7 Focus balance (FBAL) adjustment

In the tracking close mode, the focusing position is adjusted by minimizing the RFENV.

1.3.8 Focus gain and tracking gain adjustments

In the tracking close mode, some disturbance signal is applied to the servo loops. The focus and tracking gains are adjusted to the target gain cross points.

1.3.9 AS regulating adjustment

In the tracking close mode, the AS signal level is sampled the prescribed times. After A/D-converted in the ADSC, this signal is adjusted so that it becomes 64LSB at the input stage of the digital equalizer.

For each automatic adjustment, the adjustment results can be displayed in the test mode for verification.

Condition	Coefficient name	DVD	CD
Power-on	FE offset	FC44 - 03BC	FABB - 0545
	TE offset	EF90 - 1070	F435 - 0BCB
	AS offset	FBBB - 0745	F8BB - 0745
Focus close	Spindle gain	01CF - 048D	01CF - 048D
	FE maximum	1767 - 462B	15C2 - 485A
	FE minimum	B9D5 - E899	B7A6 - EA3E
	AS maximum	1006 - 2AD5	0E96 - 26FD
	FE regulation	014E - 044E	0142 - 04AB
Focus close (after TBAL)	TE maximum	199E - 4776	147C - 43D6
	TE minimum	B88A - E662	BC2A - EB84
	TE regulation	00F7 - 03AE	00EF - 0428
Tracking close	Focus gain	0100 - 0400	0100 - 0400
	Tracking gain	0100 - 0400	0100 - 0400
	AS regulation	0170 - 04BF	0192 - 05D0

Notes:

The coefficient values are indicated in the hexadecimal system.

The specifications shown above are for the production line.

The used discs are DVD-REF-A1 and TCD-782 for DVDs and CDs respectively.

1.4 Back-end section

As described before, in the front-end processor and optical disc controller, the data is read out from a disc, and processed for demodulation and error correction.

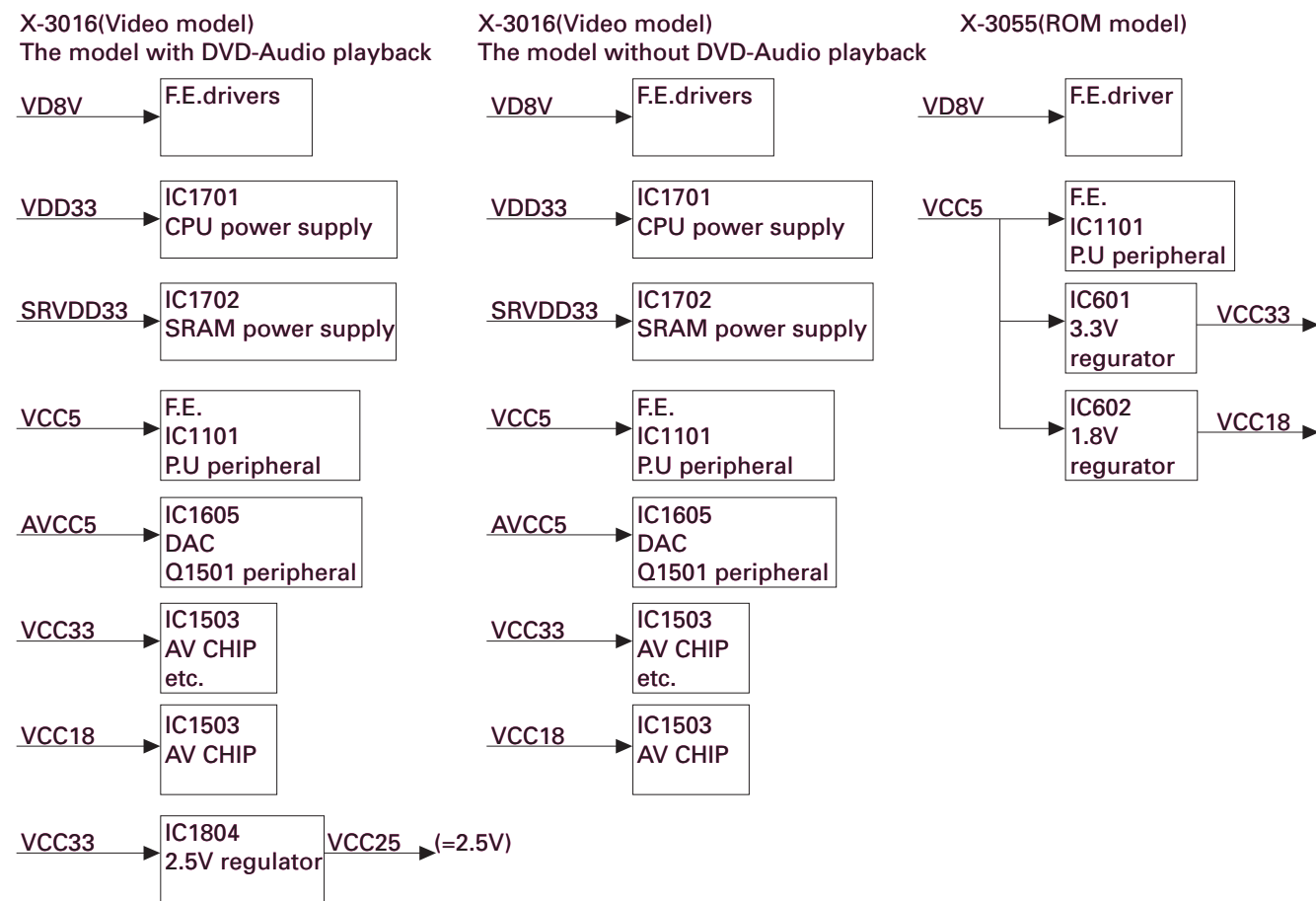
Here in the back-end section, thorough the MPEG decoding, compressed audio decoding and other processing, the data is output as video and audio signals.

The back-end section, including the microcomputer, its peripheral circuits, and power supply, is explained below:

1.4.1 Back-end power supply

The back-end power supply for each model is shown below.

The video-type model with DVD-Audio reproduction function has the 2.5V internal regulator, but the video-type model without DVD-Audio reproduction function does not. The ROM-type has a different power supply circuit from those for the video-type models.



Power supply configuration

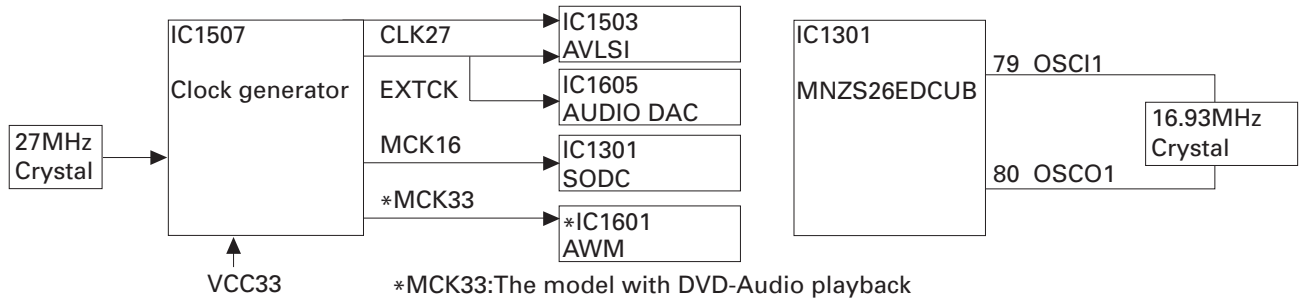
1.4.2 Back-end clock section

For the Video-type models:

An oscillating crystal of 27MHz is used to generate the 27MHz buffer-out (CLK27), audio section clock (EXTCK), and front-end section clock (MCK16) signals by the IC1507.

For the ROM-type model:

An oscillating crystal of 16.93MHz is used to generate the front-end section clock (MCK16) signal by the IC1301.



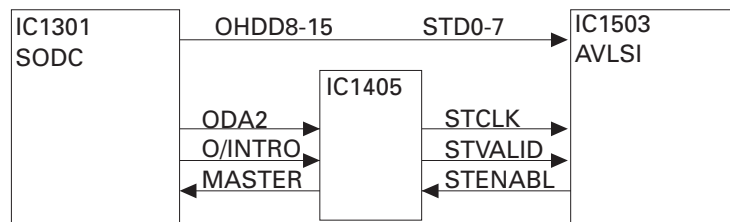
Clock configuration

1.4.3 Back-end stream I/F section (only for the video-type models)

This section functions as an interface to transfer the data read out in the front-end section, between the SODC and the back-end section.

For DVDs, this section transfers MPEG data, which is generally called MPEG stream. Therefore, the I/F section is called stream I/F.

Note that the signals are given different names between the IC1301 SODC and IC1503 AVLSI.



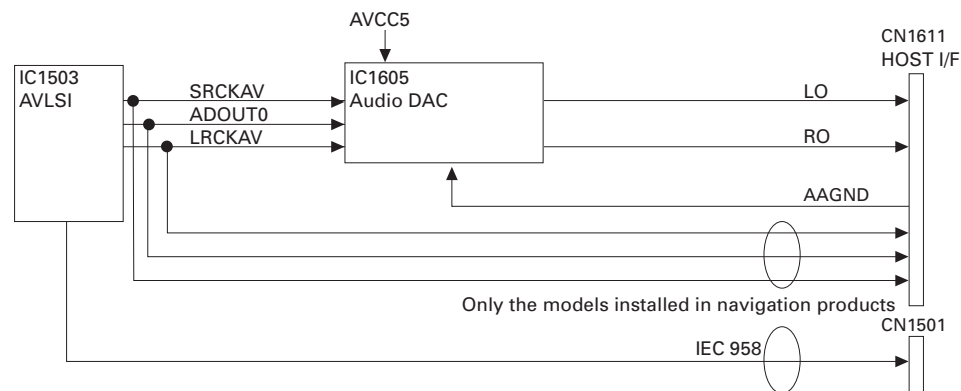
Streaming I/F

1.4.4 Back-end audio circuit section (only for the video-type models)

The three serial audio signals, output from the AVLSI, are applied to the IC1605 (Audio DAC), where they are converted into analog audio signals. These analog signals are output from the HOST I/F.

Only for the models installed in navigation products, after output from the AVLSI, the same serial signals are directly put out from the HOST I/F.

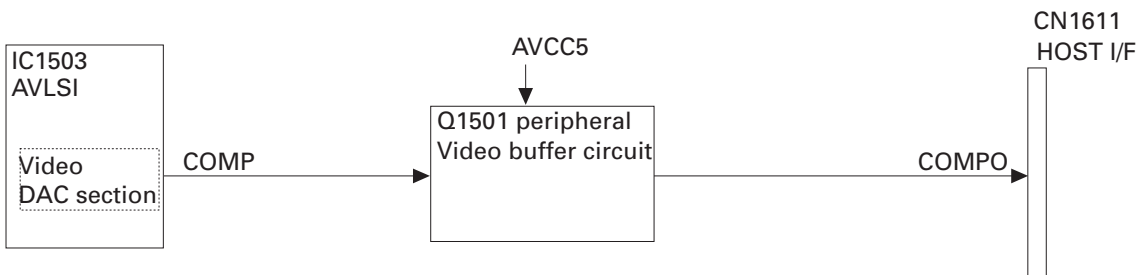
The IEC958 (audio/digital out) is available only for the model without DVD-Audio playback function.



The model without DVD-Audio playback
Audio circuit

1.4.5 Back-end video circuit section (only for the video-type models)

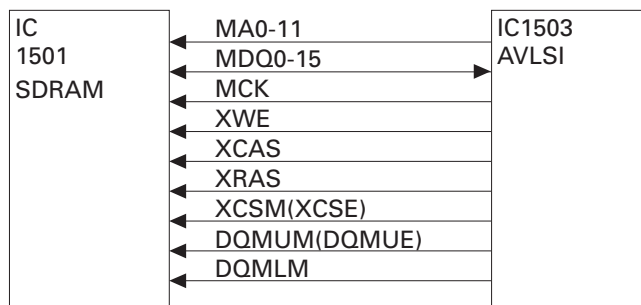
The composite video signal from the video DAC circuit inside the AVLSI is output from the HOST I/F via the video buffer circuit.



Video circuit

1.4.6 Back-end SDRAM I/F section (only for the video-type models)

For the SDRAM, which functions as the communication I/F between the AVLSI and the memory, a 64Mbit IC has employed to secure the MPEG stream data buffer.

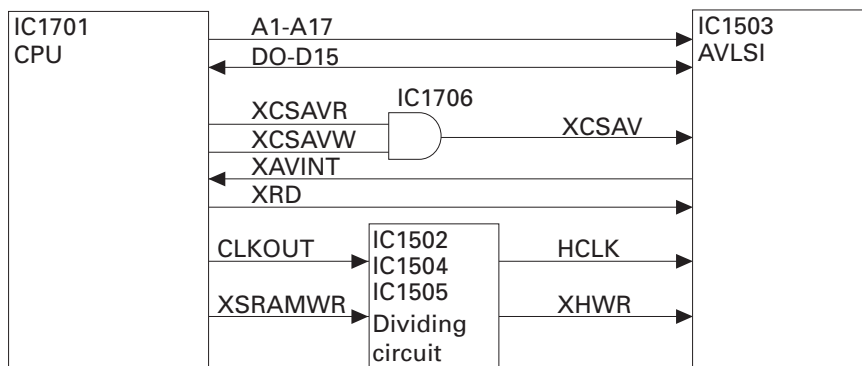


SDRAM interface

1.4.7 Back-end microcomputer I/F section (only for the video-type models)

This section works as a communication interface between the AVLSI and the CPU.

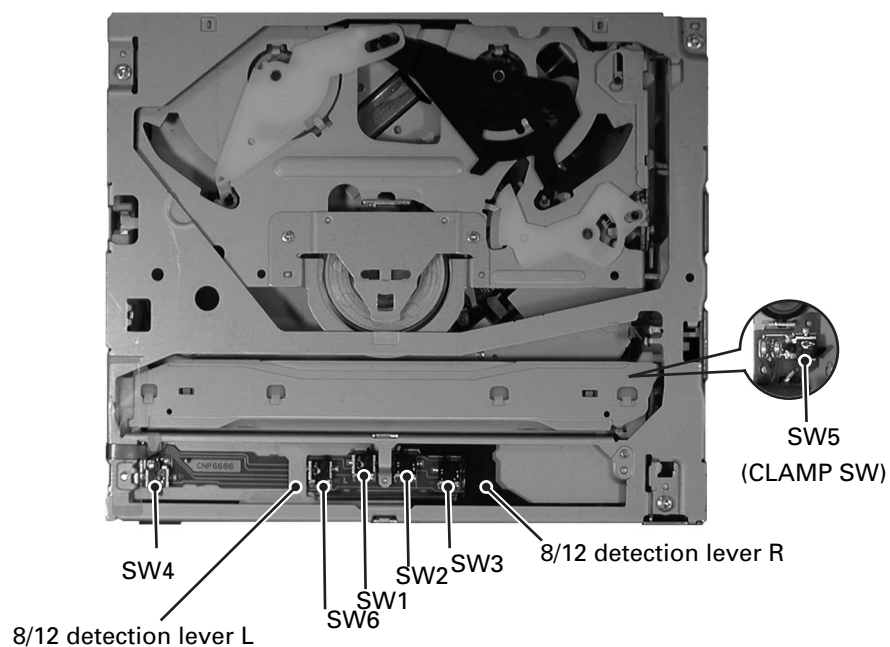
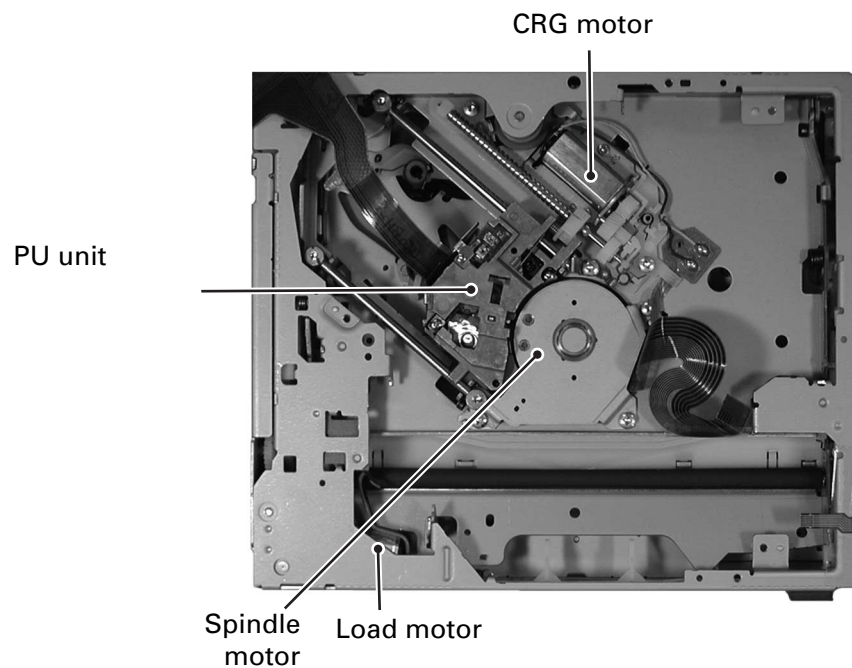
In order to match the operating frequency for the CPU with that for the AVLSI, a frequency dividing circuit is inserted as shown below.



Microcomputer interface

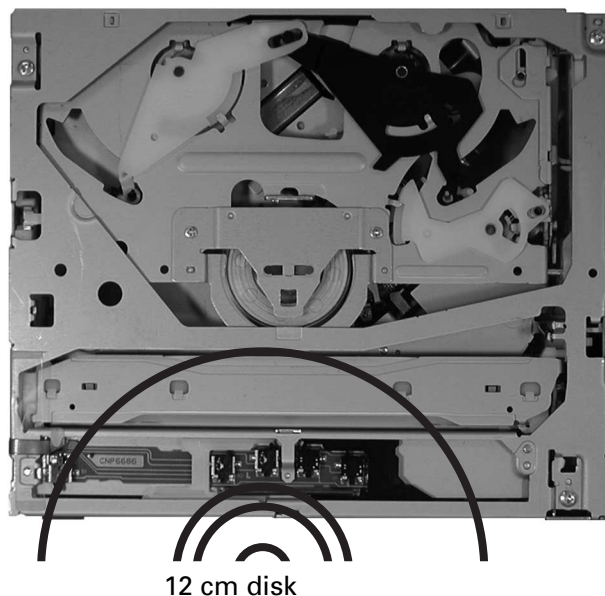
2. Mechanism descriptions

Configuration

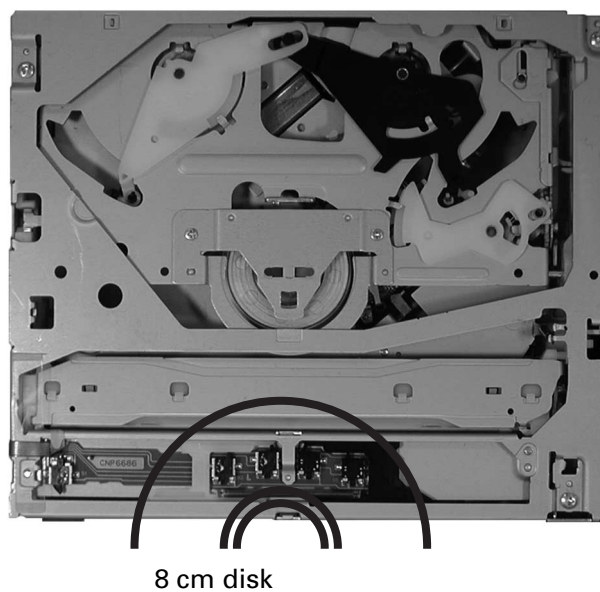
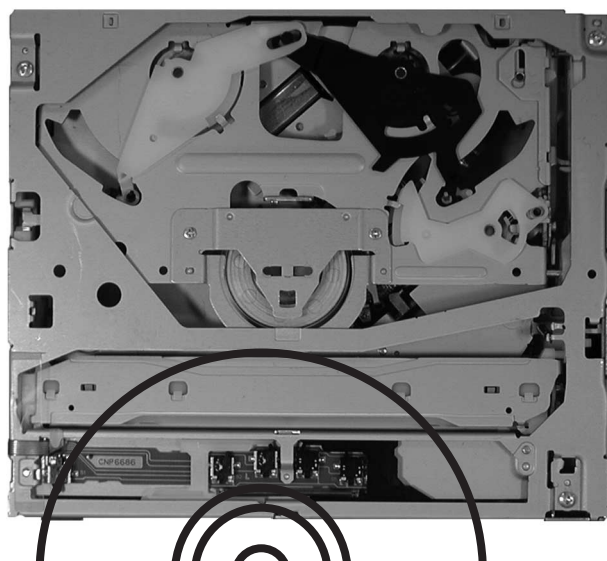


2.1 Disc loading operation

1. When a disc is inserted, the 8/12-detection levers R and L slide. Either of the switches SW1 and SW2 is shifted from ON to OFF, which triggers the operation of the loading motor.
2. For a 12cm disc, the switch SW3 is turned OFF and SW4 is ON during disc transportation. The microcomputer senses that a 12cm disc is loaded.

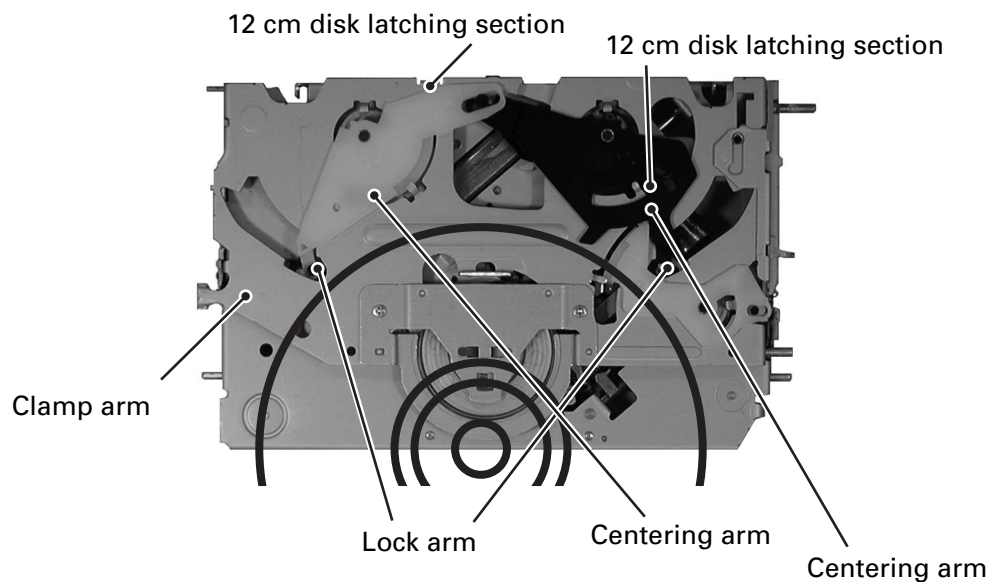


3. For an 8cm disc, neither the switch SW3 nor SW4 will be shifted to the above states (SW3: OFF, SW4:ON) during disc transportation. The operation mode proceeds to the clamp operation. The microcomputer senses that an 8cm disc is loaded.

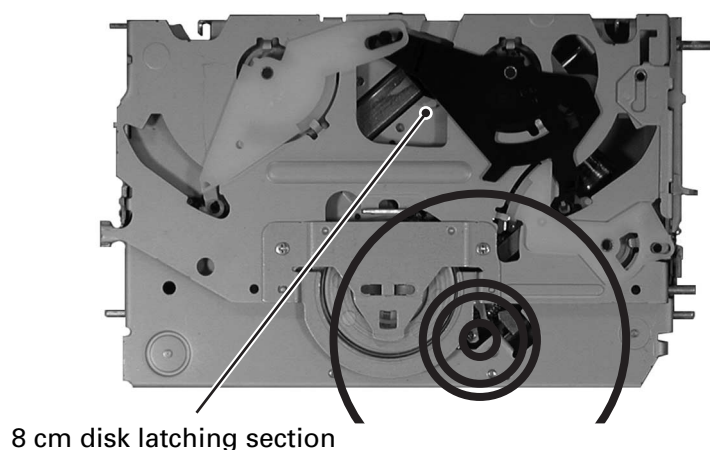


2.2 Disc centering mechanism

1. With a 12cm disc loaded, the disc pushes both of the lock arms R and L to open the centering arms R and L. Then, the clamp arm or the stopper of the centering arm R stops the disc for centering. The operation mode proceeds to the clamp operation.

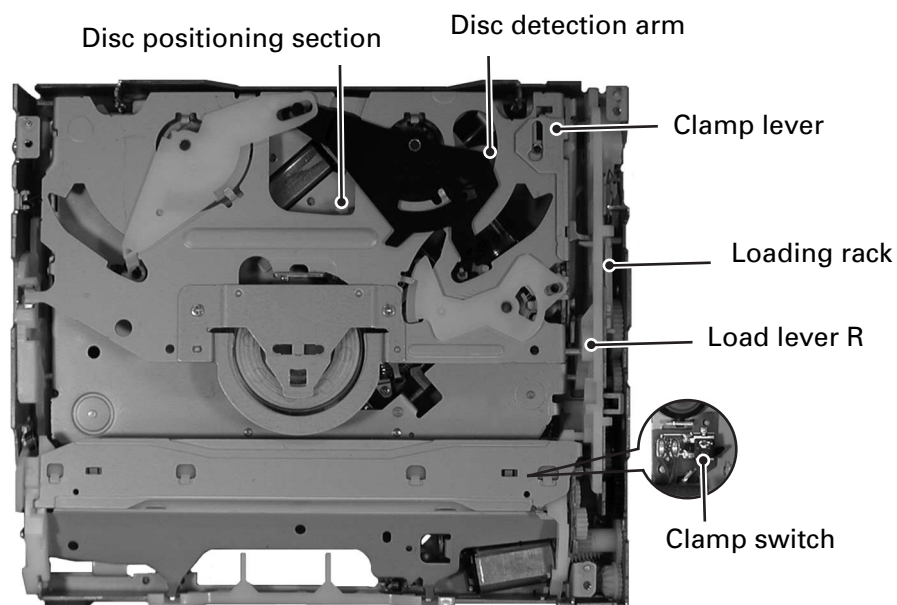


2. With an 8cm disc loaded, the disc pushes either of the lock arms R and L. The lock arms R and L are connected each other via the centering arms R and L. The lock arms R and L will be kept locked unless the disc pushes them at the same time. Therefore, the lock arm blocks the disc for centering. During disc centering, the disc pushes out the disc detection arm. When the detection arm completes moving, the disc stops. The operation mode proceeds to the clamp operation.

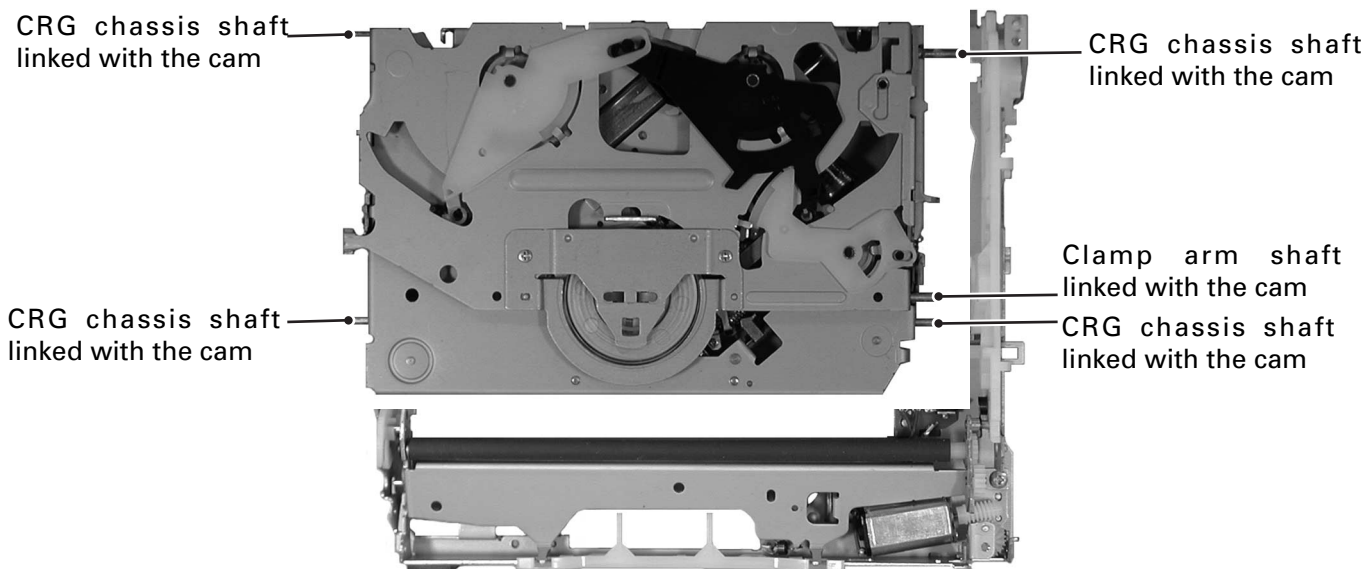


2.3 Clamp operation

1. When an 8 or 12 cm disc is centered over the spindle, the disc detection arm moves the clamp lever. The loading rack driven by the clamp lever is engaged with the lever driving gear, which triggers the disc clamp operation.



2. When pressed by the loading rack, the load lever R moves toward the front side, and the roller shaft, which is connected to the cam of the load lever R, moves downward. The roller shaft is connected to the cam of the cam ring also. Therefore, the drive of the roller shaft is transferred to the load lever L via the cam ring. The load lever L moves toward the front side. The load lever cams are released from the three shafts for the CRG chassis unit and the clamp arm shaft. When the load lever R turns on the clamp switch, the clamp operation ends.



2.4 Eject operation

1. When the loading motor turns in reverse, the disc eject operation begins.
2. With a 12cm disc loaded, when the SW4 is shifted from OFF to ON, and then OFF again, the eject operation ends.
3. With an 8cm disc loaded, when the SW3 or SW 6 is shifted from ON to OFF, and then both switches are turned ON, the eject operation ends.

3. Disassembly

● Precautions on handling the mechanism module

1. Hold the upper and main frames.
2. Do not hold the front portion of the upper frame. It is a delicate part.
3. Do not touch the switches on the top panel.
4. Be careful not to catch the flexible cables.

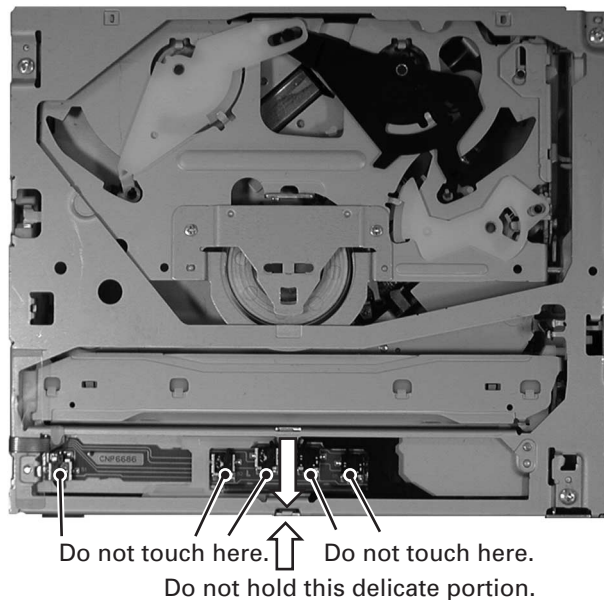


Fig. 1

● Removing the module pc board (fig.2 and 3)

1. Set the mechanism to the lock position (disc load standby position).
2. Place the mechanism module upside down.
3. Short the two lands on the pickup flexible cable as shown below.
4. Be sure to disconnect the pickup flexible cable and the CRG flexible cable from the connectors to protect them from damages.
5. Remove solder from the load motor leads and clamp SW leads.
6. Loosen the two fixing screws. Lift the position A of the module pc board lightly and move it in the direction B to remove it. Be careful not to damage the flexible cable C.
7. Disconnect the 8/12 detection flexible-cable from the connector.

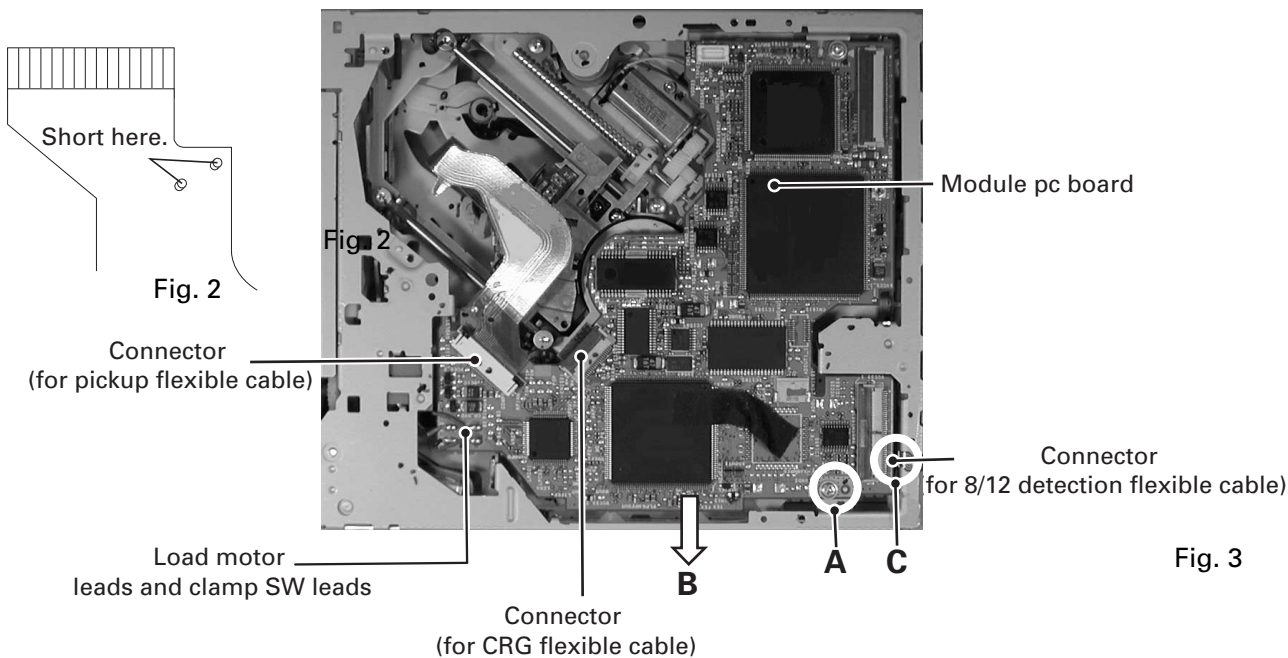


Fig. 3

● Removing the pickup unit (fig. 4)

1. Remove the module pc board in accordance with the procedure of "Removing the module pc board."
2. While holding the pickup case, remove the skew screw (main).
3. Lifting the end of the pickup rack, slide the main shaft, and remove the pickup unit.

Notes:

Replacing the pickup unit requires the skew adjustment.

Remove glue from both ends of the main and sub shafts, and skew stud.

Do not reuse the old skew screw. Be sure to use a brand-new skew screw supplied with a new pickup unit.

Fix the skew screw with glue (GYL1001) after adjustment.

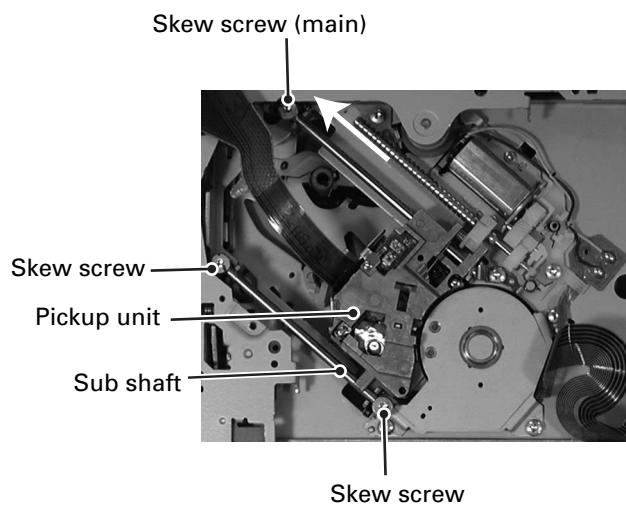


Fig. 4

● Removing the CRG motor ASSY (fig.5)

1. Remove the module pc board in accordance with the procedure of "Removing the module pc board."
2. Release the CRG motor leads from the resin guide and remove the CRG flexible cable from the land.
3. Remove the fixing screw, and remove the feed screw holder together with the 2-stage gear.
4. Remove the fixing two screws and CRG motor ASSY.

Caution: When replacing the CRG motor ASSY, be careful not to damage the gears, especially the 2-stage gear that is very delicate. When lifting the pickup rack to install the motor, be careful not to damage the gear teeth.

● Removing the spindle motor (fig.5)

1. Remove the module pc board in accordance with the procedure of "Removing the module pc board."
2. Release the CRG motor leads from the resin guide and remove the CRG flexible cable from the land.
3. Remove the three fixing screws for the SPDL motor. Be careful not to deform the CRG chassis when replacing the SPDL motor.

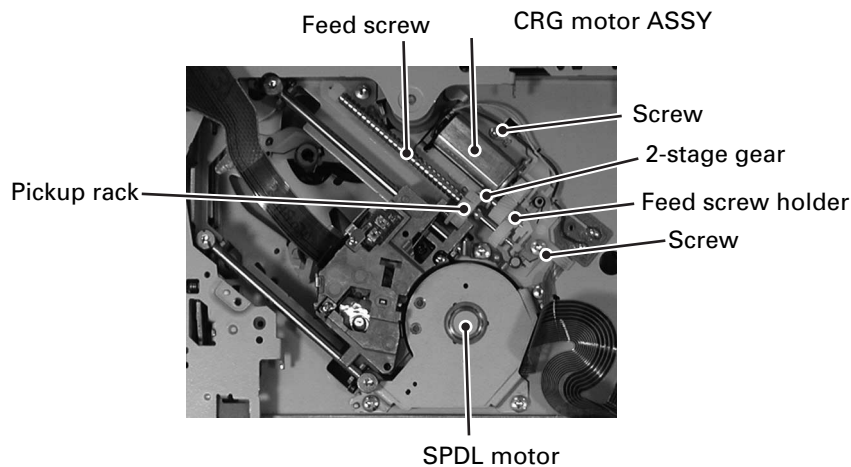


Fig. 5

● Removing the upper frame ASSY (fig. 6)

1. Remove the module pc board in accordance with the procedure of "Removing the module pc board."
2. Remove the spring.
3. Remove the four screws and remove the upper frame ASSY.

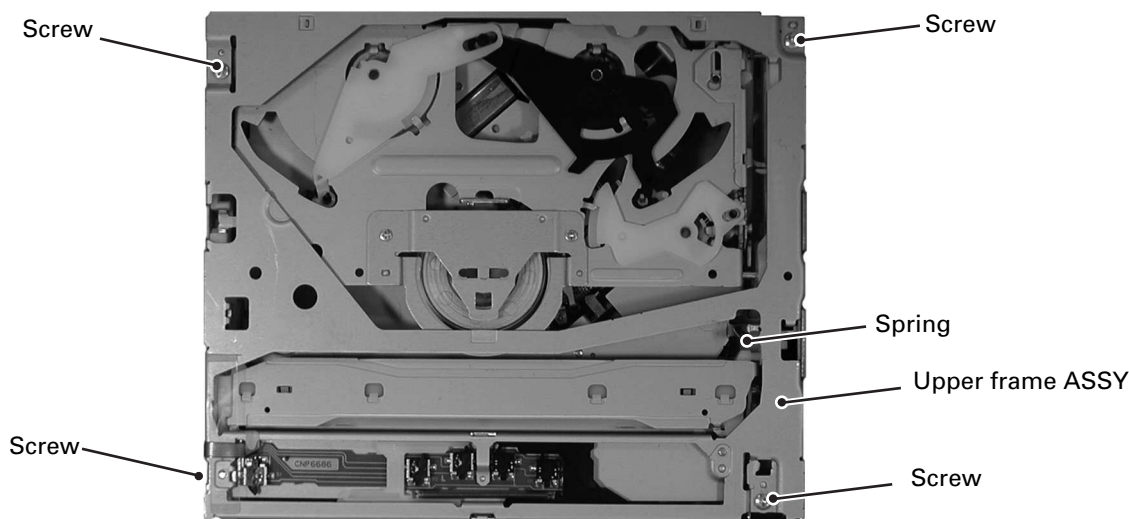


Fig. 6

● Removing the load gear ASSY (fig. 7)

1. Remove the module pc board in accordance with the procedure of "Removing the module pc board."
2. Remove the upper frame ASSY in accordance with the procedure of "Removing the upper frame ASSY."
3. Remove the two screws and remove the load gear ASSY.
4. Remove the loading rack and the spring.

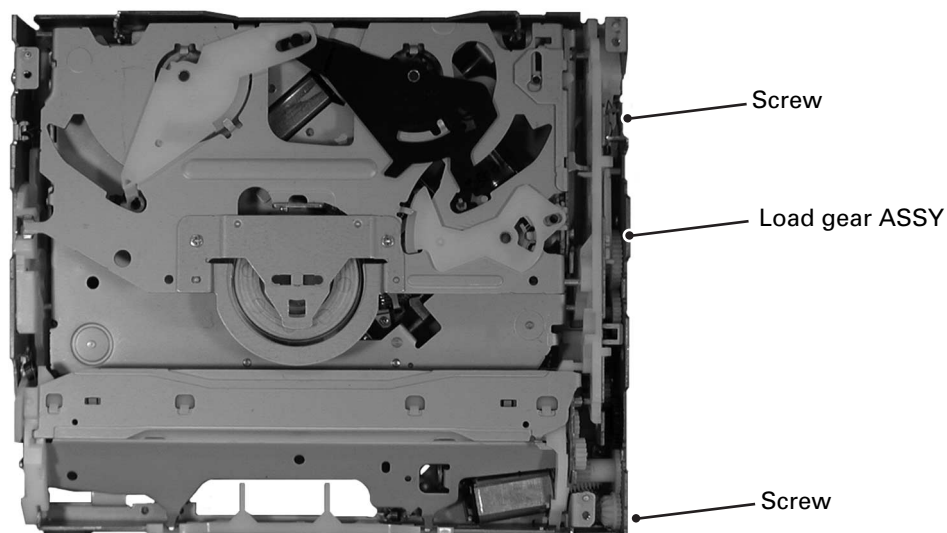


Fig. 7

● Setting the quasi-clamp mode by driving the loading motor (fig. 8)

1. While driving the loading motor in the clamping direction, pull the clamp lever toward the front side.
2. Even after the clamp lever pushes the loading rack (clamp mode), keep the clamp lever pulled lightly. Prevent the clamp lever bar ring from coming into the clamp spring. If not, ejection will not be impossible.
3. After the clamp operation ends, stop the operation before the objection of the loading rack touches the load lever R. (fig. 10)

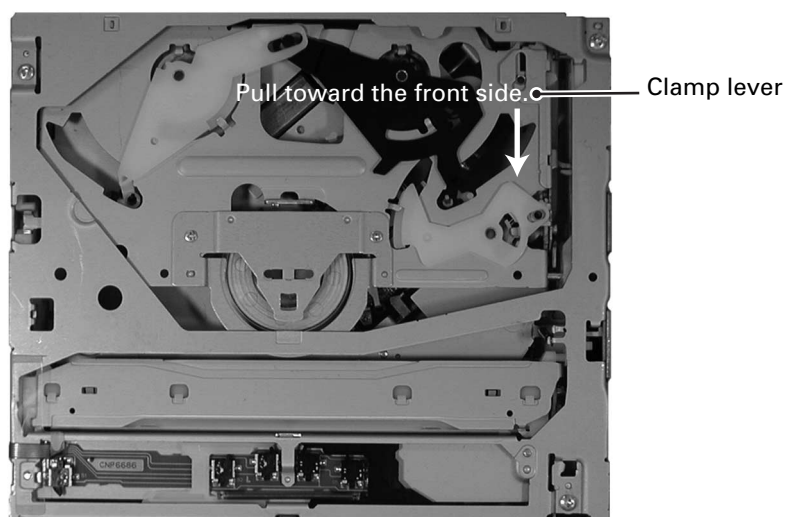
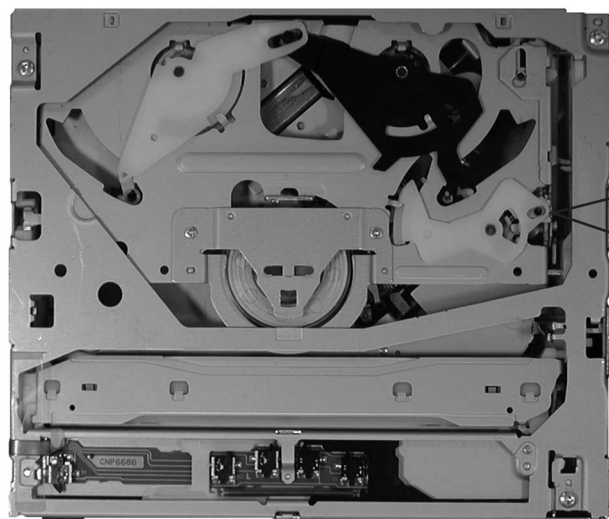
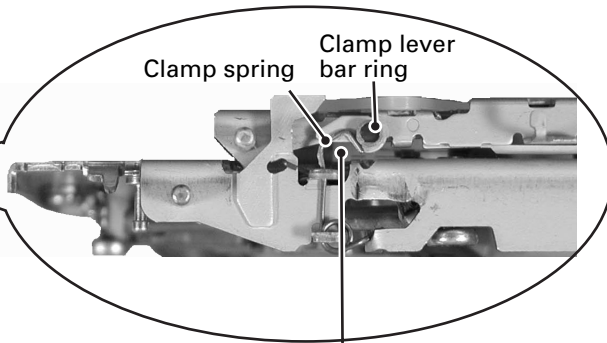


Fig. 8

A



B

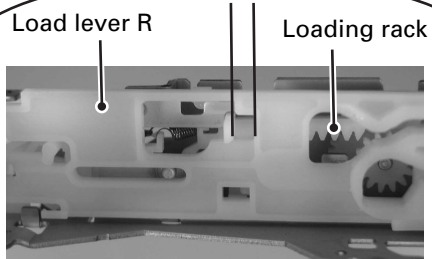


Prevent the clamp lever bar ring
from coming into the clamp
spring (the above condition is NG)

Fig. 9

C

Stop before this
clearance
becomes zero.



D

E

F

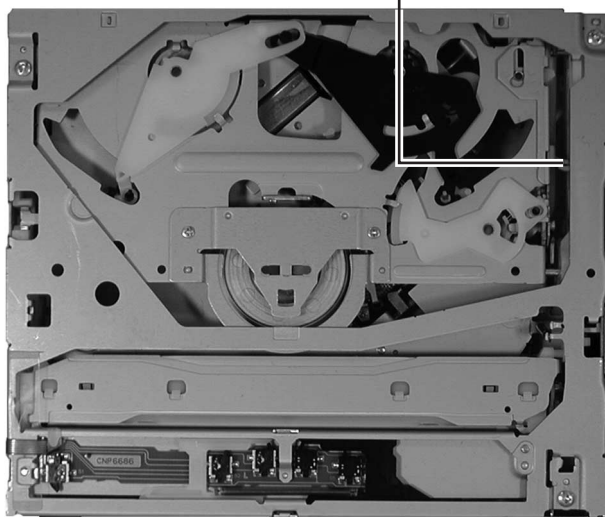
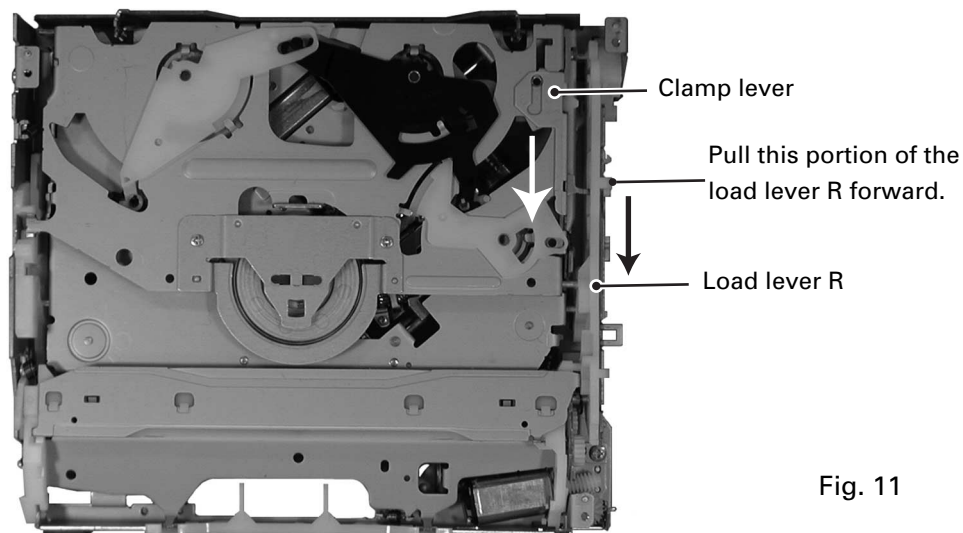


Fig. 10

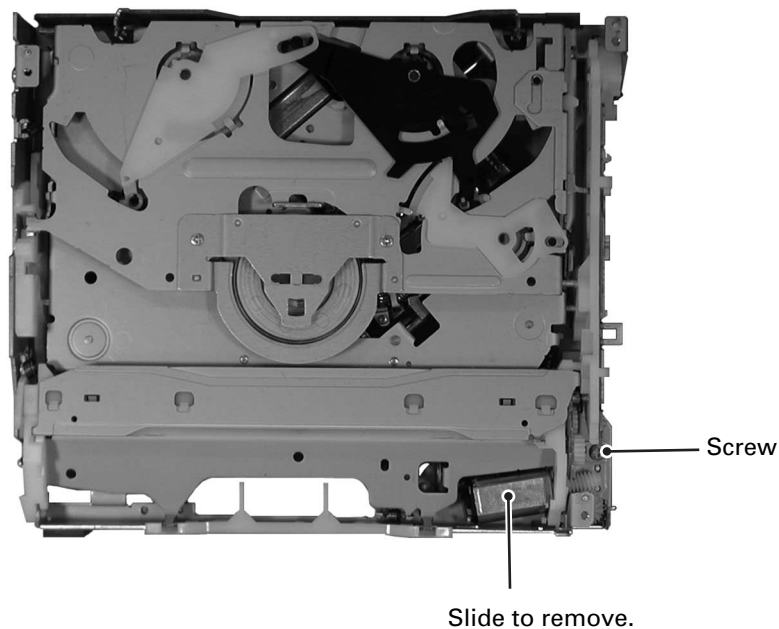
● Setting the quasi-clamp mode manually (fig. 11)

1. Remove the module pc board in accordance with the procedure of "Removing the module printed circuit board."
2. Remove the upper frame ASSY in accordance with the procedure of "Removing the upper frame ASSY."
3. Remove the load gear ASSY in accordance with the procedure of "Removing the load gear ASSY."
4. While pulling the clamp lever toward the front side, pull the fixed portion of the load lever R toward the front side until the mode enters the clamp position.



● Removing the load motor ASSY (fig. 12)

1. Remove the module pc board in accordance with the procedure of "Removing the module printed circuit board."
2. Remove the upper frame ASSY in accordance with the procedure of "Removing the upper frame ASSY."
3. Remove the load gear ASSY in accordance with the procedure of "Removing the load gear ASSY."
4. Enter the quasi-clamp mode in accordance with the procedure of "Setting the quasi-clamp mode manually."
5. Remove the screw. Slide the load motor ASSY to pull it out.



● Removing the CRG ASSY (fig. 13)

1. Enter the quasi-clamp mode in accordance with the procedure of "Setting the quasi-clamp mode by driving the loading motor."
2. Remove the module pc board in accordance with the procedure of "Removing the module pc board."
3. Remove the upper frame ASSY in accordance with the procedure of "Removing the upper frame ASSY."
4. Remove the four springs.
5. Lift the CRG ASSY until the shafts come from the dampers, and then remove it.

● Removing the disc guide ASSY (fig. 13)

1. Enter the quasi-clamp mode in accordance with the procedure of "Setting the quasi-clamp mode by driving the loading motor."
2. Remove the module pc board in accordance with the procedure of "Removing the module pc board."
3. Remove the upper frame ASSY in accordance with the procedure of "Removing the upper frame ASSY."
4. Remove the two disc guide springs. While lifting the disc guide and keeping the lifting angle around 45 degrees, slide the guide in the left side to remove it.

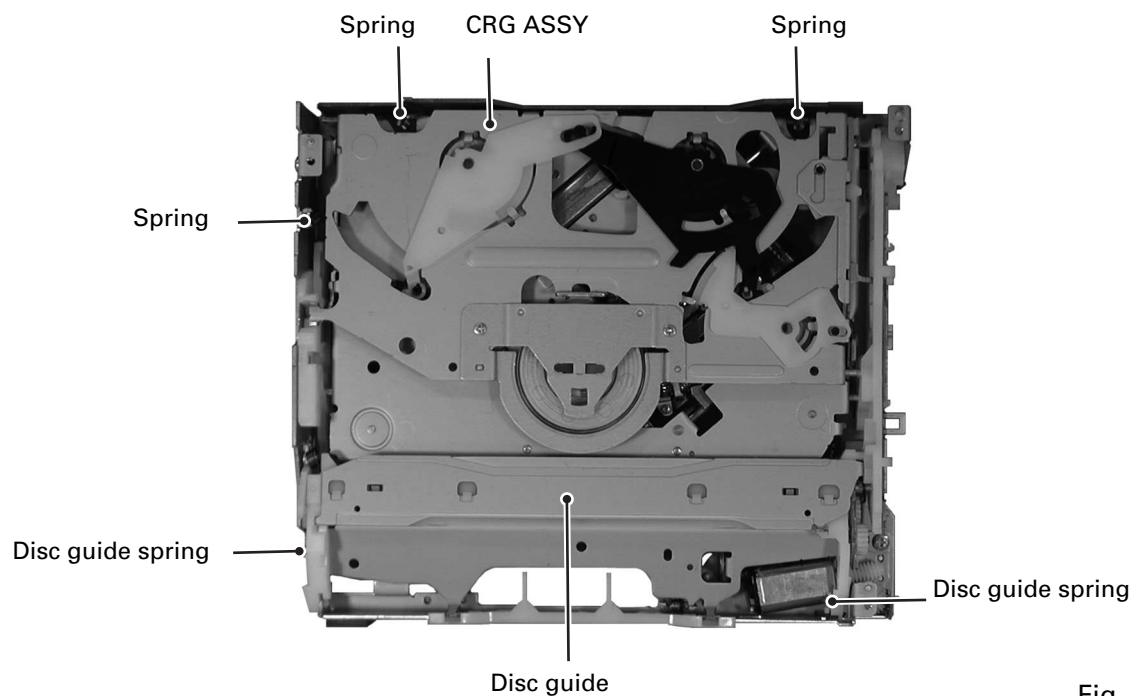


Fig. 13

● Removing the roller ASSY (fig. 14)

1. Remove the module pc board in accordance with the procedure of "Removing the module pc board."
2. Remove the upper frame ASSY in accordance with the procedure of "Removing the upper frame ASSY."
3. Remove the tension spring.
4. Remove the load gear ASSY in accordance with the procedure of "Removing the load gear ASSY."
5. Enter the quasi-clamp mode in accordance with the procedure of "Setting the quasi-clamp mode manually."
6. Remove the disc guide ASSY in accordance with the procedure of "Removing the disc guide ASSY."
7. Remove the CRG ASSY in accordance with the steps 4 and 5 in the procedure of "Removing the CRG ASSY."
8. By pushing the fixed portion of the load lever R, move the load lever R to the rear side completely.
9. Remove the load levers R and L. Unhook the end of the roller arm spring R from the load lever R.
10. While lifting the roller ASSY to the highest position, slide it to the right side. Lightly bend the whole slot guide by pushing the ends with your fingers and remove the roller ASSY.

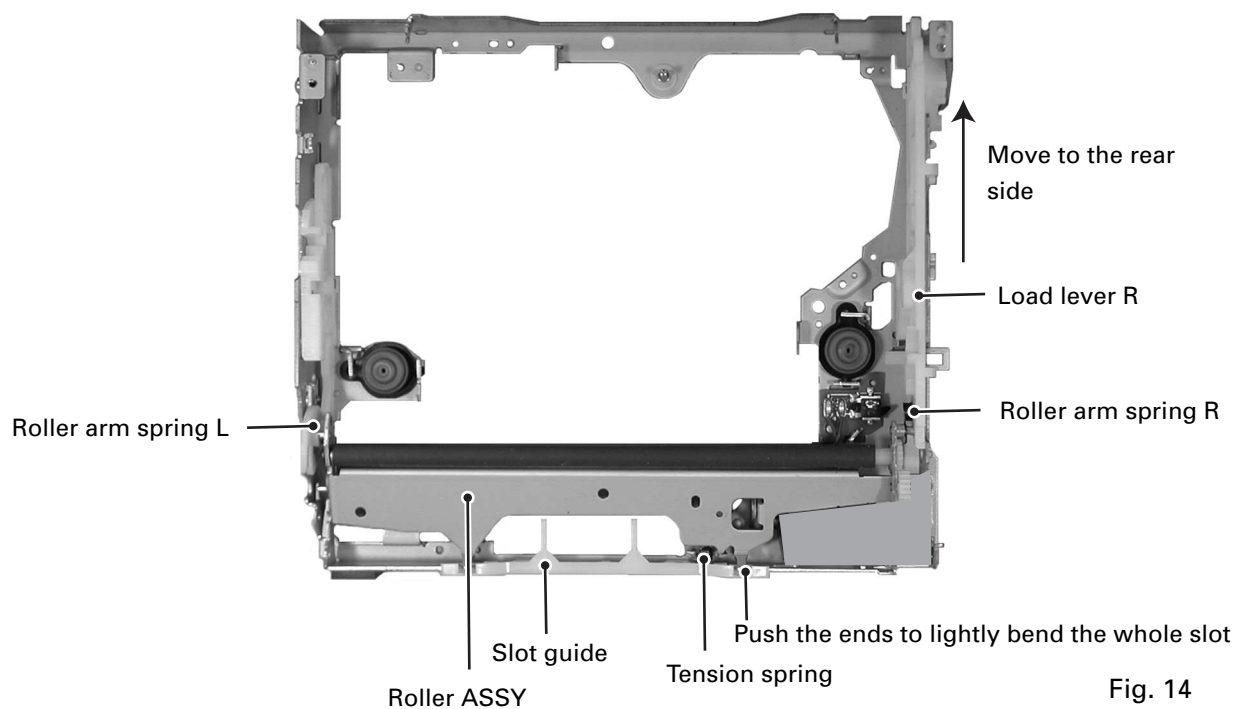


Fig. 14

● Removing the dampers (fig. 15)

1. Enter the quasi-clamp mode in accordance with the procedure of "Setting the quasi-clamp mode by driving the loading motor."
2. Remove the module pc board in accordance with the procedure of "Removing the module pc board."
3. Remove the upper frame ASSY in accordance with the procedure of "Removing the upper frame ASSY."
4. Remove the three springs.
5. Remove the CRG SSSY in accordance with the steps 4 and 5 in the procedure of "Removing the CRG assembly."
6. Release each of the three dampers from the clinches as follows:
 - 6.1 By using a pair of pliers, hold the portion A and turn them in the direction B. While making a gap in the portion C, release the damper from the clinches.
 - 6.2 Insert a flat-type screwdriver into the portion D. Slightly raise the plate and release the damper from the clinches.
7. Remove the CRG motor ASSY in accordance with the steps 2 through 4 in the procedure of "Removing the CRG motor ASSY."
8. Remove the dampers.

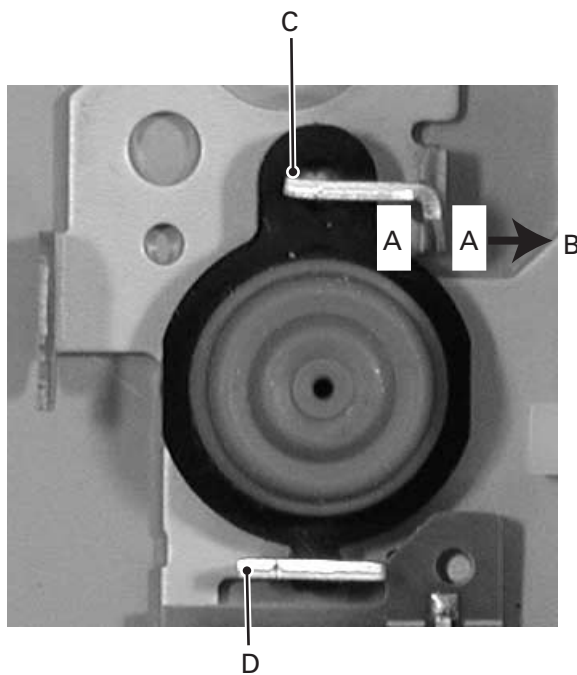


Fig. 15